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MANUAL OF INSTRUCTION

FOR THE

VOLUNTEERS AND MILITIA

OF THE

UNITED STATES.

COMBINING AS MUCH OF THE SYSTEMS OF COOPER, SCOTT, AND HARDEE, AS IS RECOGNIZED IN THE UNITED STATES ARMY.

1821

BY

MAJOR WILLIAM GILHAM, U. S. A.

OF INDIANA.

PHILADELPHIA:

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1861

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PREFACE.

The following work was undertaken with the hope of meeting, to some extent at least, a long-felt want among the volunteers and militia; that is, a manual, which, besides containing every thing which may be necessary for mere tactical instruction, should also embrace more or less instruction on various other subjects of equal importance with tactics; subjects that few men who have not been regularly trained in the military service, have much familiarity with. In the regular service the necessity for such a work is not felt, at least not to the same extent as among the volunteers and militia, from the fact that the military system being in constant operation, and each individual, no matter what his present rank may be, having gradually risen from a low, or perhaps the very lowest grade, has abundant opportunities for becoming familiar with it in all its details, before he is called upon for any extensive exercise of his professional knowledge. With the volunteers and militia, however, where no such process for the acquisition of important practical knowledge is attainable, the case is very different. Called suddenly into active service, from the various pursuits of civil life, all, even the highest in rank, and the best informed, meet with difficulties on every side; what would seem to be comparatively plain and simple to the old campaigner, must of necessity be more or less obscure to the volunteer or militia officer, whose opportunities for the attainment of military knowledge have been limited.

It is not intended, nor indeed would it be desirable, that the present work should embrace every thing which is proper to be known by our citizen soldiery; its aim is, simply to aid the inexperienced so far as to enable them to become familiar with such principles, and practical details of the military service, as are absolutely essential to those who would be competent officers, whether in the line, or in the staff. If it accomplishes this, it will not have been compiled in vain.

The Introduction, or "Glossary," will, it is hoped, be found useful to the student of military art or science, and to the reader of military history.

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Article I., on Army Organization, commences with a general account of the four arms of the service,—Infantry, Cavalry, Artillery, and Engineers,—the duties of each in the conduct of a campaign, and the proportion they should bear to each other in an army. The latter part of the Article enters more fully into the details of the organization of each of the three leading arms, and closes with a short account of the duties of the various departments of the staff.

In Article II., upon Arms and Ammunition, will be found a condensed account of the various arms and kinds of ammunition used by infantry, cavalry, and artillery, together with the manner of preparing and using the latter.

From Article III. to Article XI., inclusive, will be found the tactical portion of the work; it embraces very full instructions for every kind of Infantry troops, from the School of the Soldier to that of the Battalion; Cavalry tactics, from the School of the Trooper to the Instruction of the Regiment; and Artillery tactics, from the School of the Piece to the Evolutions of a Battery. The whole will be found to be in strict conformity with the requirements of the United States service.

Article XII. embraces directions and forms for the conduct of every form of parade; the kinds and duties of guards; together with much other matter of a kindred nature.

In Article XIII. the duties of captains, and other company officers, in regard to the internal management, police, and *morale* of their companies; together with the proper *equipment* of officers and men, to secure efficiency as well as comfort, when in the field, camps, marches, etc., are discussed.

Article XIV. is devoted to the Staff, and embraces such directions for the conduct of those departments of the staff upon which the efficiency of an army in the field must mainly depend, as seemed most necessary. In this Article will also be found directions and forms for the preparation of the morning reports of Companies, Regiments, Brigades, and Divisions, together with such forms for requisitions, returns, etc., as are in most frequent use.

In Article XV. will be found some account of the various orders of battle, together with an outline of the manner in which the different kinds of troops should be handled in action.

Article XVI. contains directions for the organization and conduct of Military Courts; and lastly, the Appendix, containing the Articles of War, presents us with the *Military Law* now in force.

W. G.

Virginia Military Institute, *December*, 1860.

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INTRODUCTION.

GLOSSARY.

A.

Abatis. A species of intrenchment; it consists of trees felled, and laid with their branches sharpened and interwoven, so as to present a thick row of pointed stakes towards the enemy. They are generally used in front of field works; while the enemy is removing them, he is exposed to a destructive fire from the defenders.

About. A technical word to express the movement by which a body of troops reverses its front. In infantry the about is always to the right; in cavalry it is either to the right or left; and in artillery it is to the left.

Accessible. A place is said to be accessible, by land or sea, when it can be approached by a hostile force on either of these sides.

Accoutrements. A term denoting the belts, cartridge-box, scabbard, etc., of a soldier.

Action, in military language, is an engagement between two armies, or any smaller bodies of troops.

Adjutant. A regimental staff-officer, who discharges all the duties of detail of a regiment or military post, communicates all orders, forms the battalion for drills, parades, etc., mounts the guards, and in the manœuvres assists the lieutenant-colonel.

Adjutant-General is the chief staff-officer of the army, division, or brigade to which he belongs, and assists the general in the discharge of his duties; he keeps the roster of the officers; makes details for duty; makes up morning reports, returns, etc.; publishes the orders of the general; and is the channel through which all reports to, and correspondence with the general, pass.

Advanced. Signifies some part of the army in front of the rest, as in *advanced-guards*, which always precede the main body; it applies also to any portion of the command which is thrown in front of the first line.

Advantage-Ground. A ground that gives superiority, or an opportunity for annoyance or resistance.

Affair. An action or engagement; generally between small bodies of troops.

Aid-de-Camp. An officer appointed to attend a general officer: he receives and carries orders, and discharges such other duties as may be necessary. A Brigadier-General is entitled to *one*, and a Major-General to *two* aides-de-camp.

Aim. The act of bringing the firearm to its proper line of direction with the object to be struck.

Alarm is a sudden apprehension of an attack, by which men take to their arms, and stand upon their guard.

Alarm-Post is the place appointed for every regiment or detachment to assemble, in case of alarm.

Alert. Vigilant.

Alignment is the placing of men on the same line. In artillery it applies to the gun carriages, caissons, etc.

Ally, in a military sense, implies a nation united to another, under treaty, either offensive or defensive.

Ambuscade. A body of men posted in some secret or concealed place, for the purpose of falling upon an enemy by surprise.

Ambush. A place of concealment for a body of troops intended for a surprise.

Ammunition implies everything in the way of powder, balls, shells, cartridges, canister and grape shot, etc. etc.

Appointments. Warlike habiliments, accoutrements, etc.

Apprehend. Seizing or confining any person.

Approaches. The works that are carried on towards a work that is besieged.

Counter-Approaches. The works carried on by the besieged against those of the besiegers.

Apron. In gunnery, a piece of leather to cover the *vent* of a piece of ordnance.

Arm. A term used to signify a particular kind of troops, as the *infantry arm*, *cavalry arm*, etc.

To Arm. To take arms, or prepare to meet an enemy.

Armed. Something provided with, or carrying arms.

An Armed *body of men* denotes a corps or detachment ready for an engagement.

Armistice. A temporary truce.

Armory. A place for the construction of arms; also a place of deposit for arms.

Arms. All weapons whether of offence or defence.

Fire-Arms. Any machine discharged by inflamed gunpowder.

Place of Arms. A part of the covered way of a fortification. (See *Fortification.*)

Army. An organized body of armed men commanded by a general. In time of peace, the whole organized military force of the State is intended when we speak of *the army;* in time of war this force is broken up into several distinct bodies, each of which is *an army*. These armies are named from the particular duty assigned them, as the *army of invasion, army of occupation,* etc.; or from the country or direction in which they operate—as, *army of the North, army of Mexico,* etc.; or from the general who commands it—as, *army of Scott,* etc. An army is made up of a staff and administrative departments, and four distinct arms—Infantry, Cavalry, Artillery, and Engineers; each having distinct duties, but all combining to form one and the same military body.

Arrest. The depriving an officer of his sword, preparatory to trial, for an offence against military law. The order for arrest usually designates the particular limits within which the officer is required to confine himself. An officer under arrest must not call upon his commanding officer without permission, and then it must be upon business.

Breach of Arrest. Going beyond the limits prescribed in the order of arrest of an officer. It is a grave offence.

Arsenal. A place of deposit for arms and other implements. Arsenals are sometimes *arsenals of construction,* a term which signifies that it is a place of construction as well as deposit.

Articles of War. Rules for the better government of the army.

Artillery. Every sort of fire-arms of large calibre, as guns, mortars, howitzers, etc., together with everything necessary for serving them in the field, at sieges, etc. Also a term applied to the science which treats of the construction and service of artillery. Also a name given to the troops which serve artillery.

Assault. A furious effort to carry a fortified post, camp, or fortification.

Assembly. The signal to form by company.

Attack. An onset upon the enemy, either to gain a post, or break his ranks; or to divert his attention and make him divide his forces, when it becomes a *false attack.*

B.

Baggage. The clothing, tents, utensils, provisions, etc., of an army or corps.

Band. A body of musicians attached to any regiment or battalion.

Banquette. A small elevation of earth three or four feet wide, and four feet nine inches below the crest of the parapet, to enable the shortest men to fire over it with facility.

Barbette-batteries are platforms raised behind a parapet to enable the guns mounted on them to fire over the parapet, and sweep the surrounding country. They are usually placed in the *salient* points of works.

Barracks. Permanent buildings for the quartering of troops.

Barricade. To barricade, is to block up the avenues by which an enemy might have access to any position. This is done by abatis, wagons, etc.

Barrier. A passive obstacle.

Bastion, in fortification, is a work constructed at one of the angles of a polygon, consisting of two faces and two flanks. It is so constructed, that every part of it is defended by the flanking fire of some other part of the works.

Battalion. Any body of infantry from two companies to ten, and serving under the same commander.

Batter. A cannonade of heavy ordnance.

To Batter *in breach* is a heavy cannonade of many pieces directed to a single point in the walls of a fortification.

Batteries. The name given to any place where guns, howitzers, or mortars, are mounted, either for the purpose of attacking the enemy, or of battering a fortification. When a number of pieces of artillery are thrown together they also constitute a battery, as a *mounted battery*, where from four to six, or eight pieces are together, the cannoneers serving on foot; or a *horse artillery battery*, where the same number of pieces constitute the battery, the cannoneers being mounted on horses.

Battle. An action in which the forces of two contending armies are engaged.

Bayonet. A kind of triangular dagger, with a hollow shank, which fits over the muzzle of the musket, rifle, or carbine. It is principally used by infantry troops. A new form of bayonet has of late years been introduced for use on the rifle; this bayonet is in the form of a short sabre. It is called the *sabre-bayonet*, and is intended for use in the hand as well as on the rifle.

Berm. A narrow space between the ditch and parapet of a work, to keep the parapet from falling into the ditch.

To Besiege. To lay siege to, or invest any place with an armed force.

Besieged. The garrison that defends a place.

Besiegers. The troops that lay siege to a fortified place.

Bivouac. An army is said to *bivouac*, when, instead of camping in tents, the men sleep around the fires, or make temporary shelters of branches of trees, etc.

Body. Any number of men serving under one commander, as *the main body*, etc.

Bombard. To throw shells from mortars.

Breach. An opening in the works of a fortified place, made by the artillery or mines of the besiegers, preparatory to making an assault.

Breech *of a gun*. The portion from the vent to the cascable.

Brigade. Two or more regiments of infantry or cavalry, or both, under the command of a Brigadier-General.

Brigadier-General. The commander of a brigade; an officer whose rank is next above that of a colonel.

C.

Cadence. Uniform *time* and *pace* in marching, an indispensable requisite in the manœuvres of troops.

Calibre, in gunnery, is the diameter of the bore of any piece of ordnance.

Caisson. A carriage for artillery ammunition; each piece of field artillery is followed by its caisson.

Camp is the extent of ground occupied by an army when under canvass.

Campaign. The period of each year that an army is in the field.

Cannon. A general term for every form of artillery.

Cannoneers. Soldiers who serve or manage pieces of artillery.

Canteen. A small vessel used by soldiers to carry water, etc.

Cantonments. Troops are in cantonments when quartered in towns and villages, lying as near as possible to each other.

To Capitulate is to surrender any place or body of troops to the enemy, on certain stipulated conditions.

Capitulation. The conditions on which the garrison of a besieged place agrees to give it up.

Caponniere, in fortification, is a passage from one part of the work to another.

Captain. The commander of a company.

Carbine. A species of fire-arms smaller than the musket, and used mainly by cavalry.

Cartel. An agreement between two States at war, for an exchange of prisoners of war.

Cartridge. A case of paper, or flannel, fitted to the bore of a piece, and holding the exact charge of gunpowder. Cartridges for small arms are made of strong paper, those for artillery are made of flannel, or some other woollen goods.

Cartridge-box. A box made of stout leather, attached to a belt which is worn over the shoulder, or around the waist, and used to hold cartridges for small arms.

Cascable, in artillery, is the knob attached to the breech of a gun.

Casemate. A chamber covered with a bomb-proof arch, in a fortification, having an embrasure cut through the wall, through which the gun is fired. Used in fortifications on the sea coast.

Cavalier. A work constructed in the interior of a bastion.

Cavalry. That portion of an army which serves and fights on horseback.

Chamber, *of a mortar or howitzer*. A cavity at the bottom of the mortar or howitzer, intended to receive the cartridge.

Charge. In gunnery, denotes the quantity of powder with which the piece is loaded.

In the evolutions, the charge expresses the advance of a body of infantry to attack the enemy with bayonets fixed; or the rapid attack of cavalry.

Chase *of a gun*. The length from the trunnions to the muzzle.

Cheek. The pieces of timber which form the sides of gun-carriages, and upon which the trunnions rest.

Chevaux-de-freize. A piece of timber some six inches square, pierced with many holes, through which pass pieces of wood some six feet long, crossing each other at right angles, and pointed at the ends. They are used to stop up breaches, to block up the avenues of approach, etc.

Line of Circumvallation. An earthen work consisting of a low parapet and trench, made around a place which it is intended to besiege.

Colonel. The commander of a regiment.

Color. Large silk flags fixed on wooden poles.

Camp-Colors. Small flags eighteen inches square, and used to mark the color line, points of wheeling, etc.; they are also carried by the markers in the evolutions.

Combat. A battle.

Commissary. An officer charged with the purchase and issue of provisions for the troops.

Company. A small body of from 50 to 100 men, and commanded by a captain.

Convoy. A detachment of troops employed to guard any supply of men, money, ammunition, provisions, etc., conveyed in time of war to a town or army.

Corporal. A non-commissioned officer of the lowest grade.

Corps. A body of troops acting together under one commander.

Countersign. A particular word which is exchanged between guards, and entrusted to those employed on duty in camp or garrison.

Court-Martial. A military court, for the investigation and punishment of all offences committed by officers and soldiers, in resistance of military law.

Cuirassiers. Heavy cavalry armed with breastplates of metal, or cuirasses.

A Curtain, in fortification, connects two contiguous bastions.

D.

DEFENCE, in fortification, consists of all sorts of works that cover and defend an army or place.

DEFILE. A narrow passage, or road, through which troops can only march by flank, or with a very small front.

DEPLOY. To display, or spread out troops.

DEPOT. A place of deposit for military stores.

DETACHMENT. A body of troops taken from an army for a particular service.

DISCIPLINE. The instruction and government of soldiers.

DISLODGE. To drive an enemy from his position.

DISMANTLE. To strip a town or fortress of its outworks.

DITCH. An excavation or trench made around the works of a fortification, from whence the earth necessary for the construction of the parapet is raised. Ditches are of two kinds — wet and dry.

DRAGOONS. Are a kind of cavalry, who serve both on horseback and on foot.

E.

ECHELON. A position in tactics, when different bodies, whether the divisions of a battalion, battalions, or brigades, follow each other on different lines. By this arrangement both the front and one or both flanks may be protected at once.

ELEVATION. In gunnery, the angle included between the horizon and the axis of any piece of artillery.

EMBRASURE. In fortification, an opening, or aperture in the parapet of a work through which pieces of artillery are fired at the enemy.

ENCIENTE, in fortification, is the interior wall or rampart which surrounds a place.

ENCOUNTER. Combat. Fight.

ENEMY. One who is on the opposite side in war.

To ENFILADE is to throw shot along the whole length of the enemy's line.

ENGINEERS. Officers charged with planning, constructing, and repairing all fortifications and all defensive works; with planning the attack and defence of military works, etc., etc.

EPAULEMENT. A kind of breastwork to cover troops in front, or on the flank.

EPAULETTES. Shoulder-knots worn by officers.

EPROUVETTE. A small mortar for trying the strength of gunpowder.

EQUIPAGE. All kinds of furniture made use of by an army.

ESTABLISHMENT implies the quota of officers and men in an army, regiment, troop, or company.

Evolution. The movement made by a body of troops when they change their disposition.

Exempts. Men who, from their age or occupation, are not liable to be called upon for military service.

Expedition. A voyage or march against an enemy.

F.

False-*alarm*. An alarm either designedly or unintentionally created by noise, reports, etc., without being dangerous.

False-*attack*. An approach which is made for the purpose of diverting an enemy from the real point of attack.

Fascines. Long cylindrical bundles of twigs intended to support the earth in the parapets of field fortifications, etc.

Feint. A mock attack, made to conceal the true one.

Field. The place of battle. A campaign, or the action of an army while it is in the field.

Field-*officers*. The colonel, lieutenant-colonel, and major of a regiment.

Fight. Battle.

File. A line of soldiers drawn up behind each other. As a general thing, a file means two soldiers, the front and rear rank man.

Fire-arms. Every description of arms charged with powder and ball.

Flanks. The right and left of an army, encampment, battalion, company, etc.

Flank. In fortification, any part of a work defending another, by a fire along the outside of the parapet.

Foil. A blunt sword used in fencing.

Forage. The hay, straw, and oats required for the subsistance of the horses of an army.

Force. Any body of troops assembled for military purposes.

Forlorn-hope. Men appointed to make the first attack in the day of battle, or to be the first to storm in a siege.

Fort. A fortified place surrounded by a ditch, etc.

Fortification. The art of surrounding a place by works so disposed as to render it capable of a lasting defence against a besieging army.

Field-Fortification is the art of constructing all kinds of temporary works in the field.

Front. A word of command signifying that the men are to turn to their proper front.

Fugle-man. A well-drilled, intelligent soldier, advanced in front of the line, to give the time in the manual, etc.

Furlough. A leave of absence.

Fuse. A tube fixed into a shell filled with combustible materials, which, when the shell is fired, burns and causes the shell to explode.

G.

Gabion. A cylindrical basket without bottom, and employed in throwing up intrenchments, etc.

Gallery. A passage in a mine.

Garrison. A place where troops are quartered.

General-officers. All officers above the rank of colonel. The only grades in the U. S. service are brigadier-general, major-general, and lieutenant-general.

Glacis. In permanent fortifications, the parapet of the covered way.

Grenade. A small shell thrown from the hand upon the enemy. Used in defending a work.

Grape. A kind of shot.

Guard. A body of men whose duty it is to protect an army or place from surprise. It also applies to troops kept to guard generals and other persons, or public property, etc.

Guidons. Small silk standards for cavalry.

Gunpowder. A composition of sulphur, nitre, (or saltpetre), and charcoal, mixed together and granulated, to which, if fire be applied, it burns with an explosion.

H.

Harass. To annoy, perplex, hang upon the rear or flanks of a body of men, or an army, or to interrupt the operations of a siege by repeated attacks.

Haversack. A linen bag to carry a soldier's rations on the march.

Head-quarters. The place where the officer commanding an army or independent body of troops, takes up his residence.

Hilt. The handle of a sword.

Holsters. Cases for a horseman's pistols, fixed in the pommel of the saddle.

Hospital. A place appointed for the sick and wounded.

Host. An army.

Hostility. Denotes a state of war between two nations.

Howitzer. A piece of artillery, chambered at the bottom of the bore, and intended for firing hollow shot, canister, etc.

I.

Infantry. Foot soldiers armed with the musket, or rifle.

Inroad. Sudden and desultory invasion.

Inspector-General. An officer whose duty it is to inspect the troops at stated times, and report the state of their discipline, efficiency, etc.

Intrenchment. Any work intended to fortify a post against the attack of an enemy.

Invasion. The entrance or attack of the troops of a nation on the dominions of another.

To Invest. To seize upon all the avenues of approach to a place or town, so as to cut it off from succor.

K.

Knapsack. A leather or canvas bag, worn on the backs of infantry soldiers, and which contains his clothing and other necessaries.

L.

Laboratory. A place where all sorts of fire-works are prepared, whether for actual service or for display.

Lieutenant. The lowest grade of commissioned officers.

Line of Battle is the disposition of the troops for battle.

Links. Thongs of leather used by cavalry to fasten their horses together.

Litter. A sort of bed on which wounded officers and men are carried off the field.

Lodgment. Possession of the whole or a part of the enemy's works.

Lunette. A small field work.

M.

Magazine. A place in which stores, arms, ammunition, or provisions, are kept.

Major. An officer next in rank to lieutenant-colonel.

Martial Law. The law of war.

Match. A preparation to communicate fire to guns, mortars, mines, etc.

Mines. Subterranean passages dug under the walls of a fortification, or under the works of a besieging army, for the purpose of blowing them up by means of gunpowder.

Mortars. Short cannon with large bores fitted with chambers, and used for throwing shells, stones, etc.

Muster. A parade of troops for the purpose of inspection, and taking an account of their numbers, presence, etc.

Mutiny. Any seditious or refractory conduct among soldiers.

N.

Nitre. A compound of nitric acid and potash, used in the manufacture of gunpowder.

O.

Orders. All such lawful directions as may be issued by a superior officer.

Ordnance. A general term for all guns, howitzers, and mortars.

Out-posts. Bodies of troops posted beyond the bounds or limits of the encampment.

Out-works, in fortification, are the works constructed beyond the principal works.

P.

Palisades. In fortification, stakes made of strong pieces of wood, and set in the ground.

Parallels. The trenches or lines made by the besiegers around the works of the besieged.

Parapet. In fortification, an elevation of earth designed for covering the soldiers from the fire of the enemy.

Park of Artillery. The place appointed for the artillery.

Parley. A conference with the enemy.

Parole. The promise or word of honor given by a prisoner of war when permitted to be at large, that he will return at the time appointed.

Parole is also a word given out in orders for the purpose of distinguishing friends from foes.

Party. A small detachment of troops employed upon any duty, as fatigue party, etc.

Patrol. A small party under a non-commissioned officer detached from one of the guards, to move from post to post, through streets, along roads, etc., to ensure vigilance, order, etc.

Paymaster. An officer charged with the payment of the troops.

Pickets. Out-guards occupying the first line beyond the police guards; when attacked the outposts and grand guards fall back upon the pickets for support.

Pillage. Plunder.

Pioneers. A small body of soldiers, provided with saws, axes, etc., and intended to clear the way for troops on the march, to work on the intrenchments, etc.

Platoon. Half a company.

Pontoons. Small boats used to sustain the bridges across streams for the passage of troops.

Portfire. A sort of match for firing guns, etc.

Provost-martial. An officer whose duty it is to see punishments put in force, secure prisoners, etc.

Pyrotechny. Every kind of artificial fireworks.

Q.

Quarter. To give quarter is to spare the life of a vanquished enemy.

Quartermaster. An officer whose duty it is to supply the quarters, fuel, clothing, transportation, etc., to the troops.

R.

Rally. To re-form disordered or dispersed troops into regular order.

Rampart. A bank of earth raised about a place to resist the enemy's shot, cover the buildings, etc.

Range. The distance from the gun to the place where the projectile touches the ground.

Rank. A line of soldiers drawn up side by side.

Rank and File. Non-commissioned officers and privates.

Ration. The daily allowance of bread, meat, etc., to the soldiers.

Rear-guard. A detachment of troops which brings up and protects the rear of an army.

Reconnoitre. To view and examine the country in which an enemy is operating; to examine the approaches to an enemy's works; ascertain his position, strength, etc., etc.

Redoubt. A small work in fortification.

Regiment. A body of troops composed of ten or twelve companies, and commanded by a colonel.

Reserve. A body of troops so posted as not to come into action until near its close, or until a critical moment in the battle.

Retreat. To retreat is to make a retrograde movement.

Retrenchment. Any work raised to cover a point, and fortify it against an enemy.

Ricochet. The rebounding of shot or shells after striking the ground.

Rosters are lists or tables by which the details of officers, non-commissioned officers and privates, for various duties, are regulated.

Round. A general discharge of cannon or small arms.

Rounds. A visiting or personal inspection of the guards and sentinels on duty.

Rout. The confusion created in an army or body of troops when defeated or dispersed.

S.

Sabre. A species of sword with a broad and heavy blade, curved towards the point.

Sack. An expression used when a town has been taken by storm, and given up to pillage.

Safeguard. A protection granted by the general of an army, for some of the enemy's lands or persons, to preserve them from being insulted or plundered.

Sally. A sally, or sortie, is a secret movement of attack made by strong detachments of troops from a besieged place, for the purpose of destroying the enemy's works.

Salute. A discharge of artillery in compliment of some individual. It also means the ceremony of presenting arms.

Sand-bags. Bags filled with earth for the purpose of repairing breaches, etc.

Scouts. Horsemen sent in advance or on the wings of an army to discover the enemy.

Sentinel. A private soldier placed upon a post, whose duty it is to watch the motions of the enemy, prevent surprise, and in general to enforce any specific order with which he may be entrusted.

Sergeant. A non-commissioned officer.

Sergeant-Major. The first non-commissioned officer of his regiment, and assists the adjutant in the discharge of his duties.

Service. Every kind of duty which a military man may be called upon to perform.

Shells. Hollow iron balls thrown among the enemy from mortars and howitzers. Being filled with powder, and provided with a fuse which sets fire to the contents, the shell explodes.

Siege. The art of surrounding a fortified place with an army, and attacking it by means of batteries, mines, and trenches.

Skirmish. A loose desultory kind of combat in presence of two armies.

Sorties. Parties that sally out of a place secretly to annoy the besiegers.

Spherical-cone Shot. Thin shells filled with musket-balls, and fired from a howitzer.

Storm. A vigorous assault on a fortified place.

Stratagem. A scheme or plan devised by a general to cover his designs during a campaign.

Strategy. The hostile movements of armies beyond the range of each other's cannon.

Surprise. To fall upon an enemy unexpectedly.

T.

Traverses. Parapets of earth raised to cover troops from the enfilading fire of an enemy.

Trenches. Ditches made during a siege, to enable the assailants to approach more securely.

Troop. A company of cavalry.

Trophy. Anything captured from an enemy.

V.

Vedettes. Sentries on horseback upon out-posts.

Vent. The opening in fire-arms through which the fire is communicated to the charge.

Volley. The simultaneous discharge of a number of fire-arms.

W.

Windage. The difference between the diameter of the bore, and the diameter of the shot or shell.

Wings. The right or left divisions of an army or battalion.

Works. Fortifications.

MANUAL

FOR

VOLUNTEERS AND MILITIA.

ARTICLE I.

ARMY ORGANIZATION.

1. EVERY thoroughly-organized army consists of one or more *army corps*, made up of infantry and cavalry, with an artillery equipage of one or more batteries, depending upon the strength of the corps, engineer troops, bridge trains, etc.

2. The infantry, from its powers of endurance, its capability of operating successfully in almost every position, its entire independence of the various casualties which sometimes completely paralyze cavalry and artillery, ranks first in importance in the organization of any army. The strength of the other arms is always based upon that of the infantry, which long experience has shown should be about *four-fifths* of the entire force.

The troops which compose the infantry are usually divided into *heavy* and *light;* these distinctions arise partly from the nature of the weapons, and partly from their different destination on the field of battle. The former is known as the *infantry of the line*, the latter as *light infantry* and *rifles.*

The only arm of the infantry of the line of the present day is the musket, usually the rifled musket, provided with the bayonet, which, in all the manœuvres, is fixed to the piece. This arm possesses all the essential qualities of the rifle, together with the

advantages peculiar to the musket, making it a most efficient weapon in the hands of well-disciplined troops.

The infantry of the line should be so disciplined as to act as one mass, which knows no breaking; it should be prepared to deliver its fire in line, in the face of an opposing foe; to form in columns to attack with the bayonet; form into square to resist the charge of cavalry; or stand unmoved under the fire of artillery. To it must be confided everything in the conduct of a battle which requires unyielding firmness — as the attack and defence of strong points, the formation of attacking or supporting columns, the reserves, etc.

The habitual formation of the infantry of the line of our service is in two ranks; the men of each rank being side by side, with an interval of thirteen inches between the backs of the men of the front rank and the breasts of those of the rear rank.

3. Light infantry may be armed with the musket, the same as the infantry of the line, the bayonet being worn by the side, except upon rare occasions, when it is fixed; or, it may be armed with rifles, when light infantry-men become *riflemen.* The rifle now used is short, light, easily carried on long or rapid marches, and possesses the additional advantage of the *sword-bayonet,* which, in a charge, may be used like the ordinary bayonet, or as a sword in a hand-to-hand engagement.

The duties of light troops are to open an engagement, and to do their part during its continuance. They should cover the front and flanks of the infantry of the line, in the advance of the latter, driving the enemy out of all covers, etc., only retiring upon the main body when too strongly pressed to maintain their position. Upon them usually devolve advance post, detachment, and advance and rear-guard service.

Light troops form as other infantry when occasion requires, but the habitual order of battle is the *dispersed order,* in which each man is separated some distance from his neighbor, and must depend in a great degree upon himself.

They should be expert marksmen, cool, circumspect, skilful in taking advantage of their position to secure cover, etc., and should

be prepared to keep an enemy occupied for many hours at once, and maintain their ground inch by inch.

All infantry now receives very nearly the same instruction, so as to enable it to perform all the duties that may be required of the infantry soldier, making the distinction between heavy and light troops much less.

The volunteers and militia of our country possess, in an eminent degree, all the qualities requisite for both heavy and light troops, and were they disciplined and well instructed, as all must be to be truly formidable, might serve in either capacity with as much efficiency as any other troops, let them come from whatever quarter they may.

4. "In all countries where military art is justly appreciated, the cavalry arm is placed in the *second rank* to infantry. To it an army is often indebted for turning the scales of victory, and giving a decisive character to the issue. To it the infantry, when exhausted by fatigue, or broken, often owes its safety, and through the respite gained by its charges, finds time to breathe and re-form. Without it, much of advanced-post duty, patrols, and detachment service requiring great activity, would be but badly performed.

"But the arm of cavalry by itself can effect but little; and, in many circumstances, does not suffice for its own safety. The smallest obstacles are sufficient to render it powerless; it can neither attack nor hold a post without the aid of infantry; and at night is alarmed, and justly so, at every phantom. The proportion borne by the cavalry to the infantry should vary with the features of the seat of war; being greater in a champaign than in a broken, or mountainous country. The proportion of *one-fourth* of the infantry for the first, and *one-sixth* for the last, is generally admitted by received military authority as the best." — (MAHAN.)

The essential qualities of cavalry, which distinguish it from all other troops, are that of celerity, and the irresistible force with which, under favorable circumstances, it bears down all opposition; making it, when properly handled, a truly formidable arm.

Cavalry, to be efficient, should unite several essential conditions; horses and weapons in good condition; sufficient ground to gather speed for the charge, and space for rallying; to have its flanks

covered to prevent a surprise; to be led boldly into action; and to be followed by a support or reserve sufficient to cover a retreat, or secure it from confusion if brought up unexpectedly by the enemy.

In European armies there is a marked distinction between *heavy* and *light* cavalry, but in ours the distinction is more nominal than real; all cavalry being called upon alike for the discharge of the duties of both heavy and light troops.

When acting as heavy cavalry its duties are usually confined to the field of battle; there, placed in reserve, it is held in hand until the decisive moment arrives, when it is sent forth to achieve victory, or prevent defeat.

To the light cavalry are entrusted the duties of securing the heavy cavalry from surprise; to watch over the safety of the field artillery; to perform the services required of them by infantry divisions; and those pertaining to out-post and detachment service in general.

In our service all cavalry is armed with the *sabre*, with Colt's revolving *pistols*, and with breech loading *rifles*, or *carbines*, of which there are several different patterns now in use, as Sharp's rifle and carbine, Burnside's and Maynard's rifles, etc.

5. "The artillery is placed *third in rank* among the arms. Its duties are, to support and cover the other arms; keep the enemy from approaching too near; hold him in check as he advances; and prevent his *débouching* at particular points. To perform these duties it is considered that an allowance of *one piece for each thousand men*[1] of the other arms, and *one in reserve* from the proper quota of this arm. It is to be remarked, however, that this proportion supposes the other arms in an excellent state of organization and discipline. In the contrary case, the quota of artillery must be increased; for it inspires poor troops with confidence, as they rely upon it to keep off the enemy, and cover their retreat."—(MAHAN.)

Artillery is incapable of defending itself, and must always be protected by a sufficient force of cavalry or infantry.

Field artillery, like the other arms, is divided into *light* and

[1] The proportion in the U. S. service is *two pieces* to every thousand men, and one in reserve.

heavy; a division which results from differences in the calibre of the pieces, and the manner in which they are used. The heavy field artillery comprises the 12-pounder gun, and the 24 and 32-pounder howitzer; they are generally reserved for batteries in position, and are seldom shifted during an action.

The light-field artillery is composed of the 6-pounder field gun, and the 12-pounder howitzer. When the cannoneers are mounted upon horses during the evolution, it is called *horse artillery;* when they follow the pieces on foot, it becomes *mounted artillery.*

To the heavy artillery are assigned the duties of occupying positions for strengthening the weak points of the field of battle; for securing the retreat of the army; for defending all objects whose possession might be of importance to the enemy, as villages, defiles, etc.; and for breaking down all obstacles that protect the enemy, or check the progress of the other's arms.

The light pieces, serving as mounted artillery, follow the movements of the infantry; covering the flanks of its position, preparing the way for its advance, and arresting that of the enemy. When well disciplined and skilfully handled, mounted artillery, by having the cannoneers mounted upon the ammunition boxes, may be moved with great celerity, and made almost, if not quite, as efficient as horse-artillery.

The horse-artillery, besides performing the same duties as the mounted batteries, may be used with great effect at the decisive moments of an action. "When launched forth, its arrival and execution should be unexpected and instantaneous. Ready to repair all disasters and partial reverses, it, at one moment, temporarily replaces a battery of foot, and at the next in another point of the field, to force back an enemy's column. In preparing the attacks of cavalry, this arm is often indispensable, and always invaluable; brought with rapidity in front of a line, or opposite to squares of infantry, within the range of canister, its well-directed fire, in a few discharges, opens a gap, or so shakes the entire mass, that the cavalier finds but a feeble obstacle, where, without this aid, he would in vain have exhausted all his powers."

6. Engineer troops constitute a fourth arm of service; as, com-

pared with artillery, their relative numbers are about as two to three. They are divided into the staff, guards, or fort-keepers, artificers, sappers and pioneers, miners and pontoneers.

The officers constituting the staff are charged in time of peace with planning, constructing, and repairing all fortifications and other defensive works, etc.; in time of war, engineer troops are charged with the attack and defence of military works, the laying out and construction of field defences, redoubts, intrenchments, roads, etc.; in the attack they form a part of the advanced guard, to remove obstructions; and in retreat they form a part of the rear-guard, to erect obstacles, destroy roads, bridges, etc., so as to retard an enemy's pursuit.

ORGANIZATION OF INFANTRY.

7. In the organization of infantry, the smallest number complete in itself, is the *company*, which varies in number from 50 to 100 rank and file.

A *captain*, two or more *lieutenants*, from four to six *sergeants*, and as many *corporals*, are attached to every company. The captain and lieutenants are the *officers*, and the sergeants and corporals the *non-commissioned officers* of the company.

The captain is responsible for the instruction, discipline, general efficiency, and moral tone of the company.

The lieutenants assist the captain in the maintenance of discipline, and in the instruction.

The company is divided into two equal parts, which are designated as the first and second *platoon*, counting from the right; and each platoon is, in like manner, divided into two *sections*.

The company is formed into two ranks in the following manner: the corporals on the right and left of platoons, according to height; the tallest corporal and the tallest man from the first file on the right, the next two tallest men from the second file, and so on to the last file, which is composed of the shortest corporal and the shortest man.

The odd and even files, numbered as *one*, *two*, in the company, from right to left, form groups of four men, who, when they act as light troops, are designated *comrades in battle*.

8. The officers and non-commissioned officers of the company are posted in the following manner:

The *captain* on the right of the company, touching with the left elbow.

The first *sergeant*, in the rear rank, touching with the left elbow, and covering the captain. In the manœuvres he is denominated *covering sergeant*, or *right guide* of the company.

The remaining officers and sergeants are posted as file-closers, in the *rank of file-closers*, two paces behind the rear rank.

The *first lieutenant*, opposite the centre of the fourth section.

The *second lieutenant*, opposite the centre of the first platoon.

The *third lieutenant*, opposite the centre of the second platoon.

The *second sergeant*, opposite the second file from the left of the company. In the manœuvres he is called the *left guide* of the company.

The *third sergeant*, opposite the second file from the right of the second platoon.

The *fourth sergeant*, opposite the second file from the left of the first platoon.

The *fifth sergeant*, opposite the second file from the right of the first platoon.

The corporals are posted in the front rank, as directed in No. 7. (See Fig. 1.)

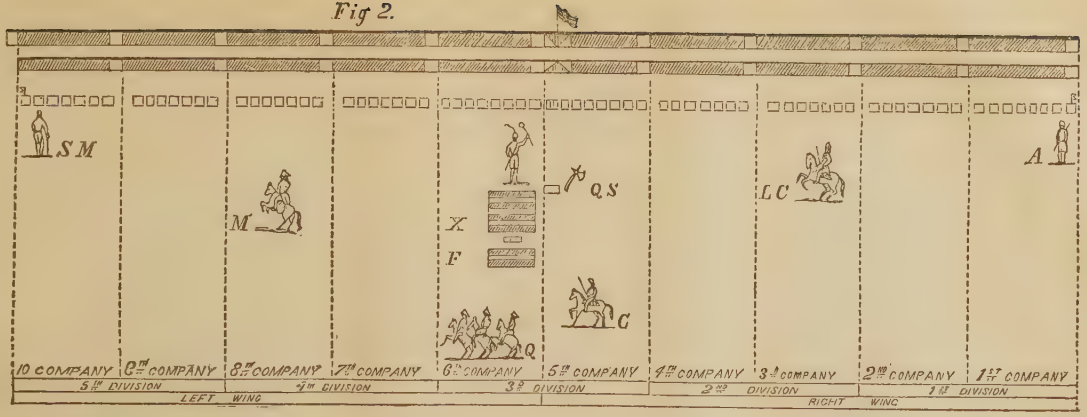
The Regiment.

9. A REGIMENT is composed of ten companies, which are habitually posted from right to left, in the following order: *first, sixth, fourth, ninth, eighth, third, fifth, tenth, seventh, second,* according to the rank of the captain. With a less number of companies the same principle will be observed, viz.: the first captain commands the right company, the second captain the left company, the third captain the right centre company, and so on.

The companies thus posted are designated from right to left, *first* company, *second* company, etc. This designation is observed in all the manœuvres.

The first two companies on the right, whatever their denomina-

Fig 2.



C. Colonel.
L. C. Lieutenant-Colonel.
M. Major.
Q. Quarter-Master.
A. Adjutant.
S. M. Sergeant-Major.
* X. Field Music. * Q. S. Q. Master Sergt.
F. Band.
Color and guard.
Right Guide.
Left guide.

Fig 1.

Captain.
First Lieutenant.
Second Lieutenant.
Third Lieutenant.
First Sergeant.
Second Sergeant.
Third Sergeant.
Fourth Sergeant.
Fifth Sergeant.

tion, form the *first division;* the next two companies the *second* division; and so on to the left.

In all exercises and manœuvres, every regiment, or part of a regiment, composed of two or more companies, is called a *battalion.*

Every regiment is provided with a color, which is posted with its guard, to be designated hereafter, on the left of the right centre company; that company, and all on its right belong to the *right wing* of the regiment, or battalion; the remaining companies constitute the *left wing.*

To each regiment are attached a *colonel,* who commands it, and is responsible for its general discipline and instruction, a *lieutenant-colonel,* two *majors,* a *quartermaster, commissary, paymaster, surgeon,* and frequently an *assistant surgeon,* an *adjutant, sergeant major, quartermaster sergeant,* and *commissary sergeant.* The four first named of these officers are the *field officers* of the regiment; the others constitute its *commissioned* and *non-commissioned staff.*

Posts of Field Officers and Regimental Staff.

10. The field officers are supposed to be mounted, and on active service must be on horseback. The adjutant, when the battalion is manœuvring, is on foot; when on the march, or in action, he is mounted.

The colonel's post is thirty paces in rear of the file-closers, and opposite the centre of the battalion. The lieutenant-colonel and senior major are behind the centres of the right and left wings respectively, the junior major behind the centre of the battalion, al. twelve paces in rear of the file-closers.

The adjutant and sergeant major are opposite the right and left of the battalion respectively, and eight paces in rear of the file-closers. They assist the lieutenant-colonel, and major, respectively in the manœuvres.

The quartermaster, surgeon, and other staff-officers, are in one rank on the left of the colonel, and three paces in his rear. The quarter-master sergeant is on a line with the front rank of the field music, and two paces on its right. (See Fig. 2.)

Pioneers, Field Music, and Band.

11. The pioneers (one for each company) are drawn up in two ranks, and posted on the right, having their left four paces from the right of the first company. A corporal of pioneers, selected from the corporals by the colonel, is posted on the right of the pioneers.

The field music (two musicians to each company) is drawn up in four ranks, and posted twelve paces in rear of the file closers, the left opposite the centre company. The principal musician is two paces in front of the field music. The regimental band (not to exceed sixteen musicians), if there be one, is drawn up in two or four ranks, according to its numbers, and posted five paces in rear of the field music, having a principal musician at its head.

Color-Guard.

12. The color-guard of a regiment or battalion is composed of eight corporals, posted on the left of the right centre company, of which company, for the time being, the guard forms a part.

The front rank is composed of a sergeant selected by the colonel, who is called the *color-bearer*, with the two ranking corporals on his right and left; the rear rank is composed of the three corporals next in rank; the three remaining corporals are posted in rear in the rank of file-closers. The left guide of the color company, when the three last named corporals are in the rank of file-closers, is immediately on their left.

In battalions of less than five companies, there should be no color-guard, and no display of colors, except at reviews.

General Guides and Markers.

13. There should be two *general guides* in each battalion, selected by the colonel from among the sergeants (other than first sergeants) for their accuracy in marching. These sergeants are denominated *right* and *left general guide*, respectively, and are posted in the line of file-closers; the first in rear of the right, and the second in rear of the left flank of the battalion.

Three *markers* are required to every battalion; they are posted

behind the first company in the rank of file-closers, when the battalion is in line, and behind the leading company or division whenever it is in column.

The Battalion in Column.

14. For the march, in many of the manœuvres, etc., the battalion is in *column*. The column may be one of companies, or of divisions, in rare instances it is one of platoons. It may be a *column right in front*, in which case the first company, or division, is in front, all the others being behind it in regular succession; or it may be a *column left in front*, in which the last company or division leads, the others following in the inverse order of their numbers.

When the right is in front, the guides of the column are habitually to the *left*, and to the *right* when the column is left in front.

The column may be one *at full distance*, at *half distance*, or *closed in mass;* in the first case the distance between the guides of any two consecutive companies of the column is equal to the width of one of the companies or divisions; in the second case it is *one-half* the width of the company or division; and in the last case, that of the column closed in mass, the distance between the guides is six paces.

Posts of the Officers when the Battalion is in Column.

15. The colonel is on the directing flank, fifteen or twenty paces from the guides, and abreast the centre of his battalion; the lieutenant colonel is on the directing flank, abreast with the leading company or division, and six paces from the guide; the majors are on the same flank, the senior abreast with the rearmost company or division, and six paces from the guide, the junior in a corresponding position abreast the centre company; the adjutant is near the lieutenant-colonel, and the sergeant major near the senior major.

In a column of companies, the captains are two paces in front of the centres of their companies; the right guide of each company is on the right of the front rank, the left guide in a corresponding position on the left; the lieutenants, and remaining sergeants, are in the rank of file-closers.

In a column of divisions, the senior captain of each division is two paces in front of the centre of his division, the junior captain in the interval between the two companies; the right guide of the right company is on the right of the front rank of the division, the left guide of the left company is in a corresponding position on the left; the right guide of the left company is in the rear rank, behind the junior captain, and the left guide of the right company is in the rank of the file-closers.

Brigades and Divisions.

16. Two or more regiments serving together constitute a *brigade*, under the command of a *brigadier-general.*

Two or more brigades serving together constitute a *division*, commanded by a *major-general.*

Two divisions serving together constitute an *army corps.*

The army corps, when supplied with a due proportion of cavalry, artillery, etc., comprises within itself all the elements of a complete army, ready for any emergency.

The interval between two contiguous regiments in the same brigade, division, or army corps, is twenty-two paces.

As often as one or more brigades or divisions, united in the same line, manœuvre together, each battalion will be designated by its number, according to its position in the line. The battalion on the right of the whole is denominated *first*, that next on its left *second*, the following one *third*, and so on to the battalion that closes the left of the line.

In line of battle, *the general* (the senior major-general present) has no fixed position; he goes whithersoever he may judge his presence necessary.

In column, he will hold himself habitually at its head, in order to direct it according to his views. In the evolutions, he will place himself at the point whence he can best direct the general execution of the movement.

In line of battle, generals of division place themselves at about seventy paces in rear of the centres of their divisions.

In column they hold themselves on the directing flank, abreast

with the centres of their divisions, and at thirty or forty paces from the guides.

In line of battle, generals of brigade place themselves at about forty paces in rear of the centre of their brigades.

In column, they hold themselves at fifteen or twenty paces outsides the guides, and abreast with the centre of their brigades.

ORGANIZATION OF CAVALRY.

The Company.

17. The company in cavalry is denominated the *troop;* it is organized upon the same principles as that of infantry; its habitual formation is in two ranks.

When the company is in line, and acting singly, the officers and non-commissioned officers are posted as follows:

The *captain* in front of the centre, one pace from the front rank.

The *first lieutenant* in rear of the centre, in the rank of file-closers.

The *second lieutenant* commands the first platoon; in the absence of a *third lieutenant,* the second platoon is commanded by the *senior sergeant.* The chiefs of platoons are posted one pace in front of the centres of their respective platoons.

The *first sergeant* in rear of the right, in the rank of file-closers.

The *second* and *third sergeants* on the right and left of the company, and denominated the *guide of the right,* and *guide of the left,* respectively.

The *fourth sergeant* is on the left of the first platoon, in the front rank, and counted in the rank; the *fifth sergeant* is in a corresponding position on the right of the second platoon.

Corporals on the flanks of platoons.

Buglers twenty paces in rear of the centre.

The Squadron.

18. Two companies united constitute the *squadron.* Each squadron is composed of four platoons, distinguished by the denomination of *first, second, third,* and *fourth,* commencing on the right.

The first and second platoons form the *first division,* the third and fourth form the *second division.*

The senior captain of the squadron is denominated the *captain commanding*, the junior captain the *second captain*.

When the squadron is in line, the officers and non-commissioned officers are posted as follows:

The *captain commanding* at the centre of the squadron, the croup of his horse one pace in front of the heads of the horses of the front rank.

The *second captain* three paces in rear of the centre of the squadron. He is charged with the alignment of the rear rank and line of file-closers.

The *senior first lieutenant* commands the first platoon; the *junior first lieutenant* commands the fourth platoon.

The *senior second lieutenant* commands the second platoon; the *junior second lieutenant* commands the third platoon.

Each of these officers is posted at the centre of his platoon, with the croup of his horse one pace in front of the heads of the horses of the front rank.

The *senior sergeant* is posted behind the first file from the right of the first platoon; he is the principal guide when the column of squadrons is left in front.

The *second sergeant* is behind the third file from the left of the fourth platoon; he is principal guide when the column of squadrons is right in front.

The *third sergeant* is posted on the right of the front rank of the squadron; he is the *guide of the right*, and is not counted in the rank.

The *fourth sergeant* on the left of the front rank; he is *guide of the left*, and not counted in the rank.

The *fifth sergeant* on the left of the first platoon, and counted in the rank.

The *sixth sergeant* on the right of the second platoon, also counted in the rank.

The *seventh sergeant* on the right of the third platoon; the *eighth sergeant* on the right of the fourth platoon — both are counted in the rank.

The heads of the horses of the file-closers are at one pace from the croup of those of the rear rank.

The *corporals* are in the front rank, on the right and left of their respective platoons, and supply the places of sergeants when necessary.

When *guidons* are used they are carried by the non-commissioned officers on the left of the first and third platoons.

The Regiment in Line.

19. The *Regiment* is made up of five squadrons, distinguished by the denomination, *first, second, third, fourth,* and *fifth;* they are formed on the same line, in the order of these numbers, commencing on the right, and with an interval of twelve paces.

This is the primitive and habitual order of the squadrons in regiments.

When a regiment is to mount, *boots and saddles* is sounded; at this signal the horses are saddled, bridled, and prepared to be led out.

At the signal *to horse!* the first sergeants direct the men to lead out.

The sergeants, corporals, and privates being in two ranks, in the order of their platoons, at the head of their horses, the orderly sergeant calls the roll.

The captain directs them to call off by fours and to mount (see No. 354), and on reaching the regimental parade, reports all absentees to the adjutant through the orderly sergeant.

In case of alarm, or surprise, *to horse* is sounded; the men then saddle, bridle, and mount with the utmost celerity, and repair to the place of assembly, which is always previously designated.

The officers and non-commissioned officers of the *field and staff* of the regiment are posted as follows:

The *colonel* twenty-five paces in front of the centre of the regiment, having a chief bugler behind him.

The *lieutenant-colonel* twelve paces in advance of the centre of the right wing.

The *major* twelve paces in advance of the centre of the left wing.

The *junior major*, when there is one, twelve paces in front of the centre of the regiment.

The colonel moves where his presence may be necessary.

The *adjutant* on a line with the front rank, two paces from the right of the regiment. When the regiment marches in line with the guide right, it is his duty to give the points of direction, and superintend the guides and the direction of the march.

The *sergeant major* on a line with the front rank, two paces from the left of the regiment. He is charged with the same functions as the adjutant, when the march is in line with the guide left.

The adjutant, assisted by the sergeant major, is also charged with tracing the lines.

The *standard-bearer* is placed at the last file but one from the left of the front rank of the platoon on the right of the centre of the regiment.

General staff-officers (surgeon, paymaster, etc.), serving with the regiment, twenty-five paces in rear of the right of the first squadron, according to rank.

The *quarter-master sergeant* behind the adjutant, on the line of the rear rank.

The *general guides* of the right and left are placed in the rank of file-closers, in rear of the Sergeant-major, and Quartermaster sergeant.

The *trumpeters*, formed in two ranks, are twenty-five paces in rear of the centre of the regiment.

The *trumpeters* of a squadron acting separately, are posted in the same manner, but in one rank. (See Fig. 3.)

Order of the Regiment in Column.

By Two or by Four.

20. In this order the squadrons preserve an interval of twelve paces between each other; the same as in line. This distance is measured from the croups of the horses of the last files of one squadron, to the heads of the horses of the first files of the next squadron.

The *colonel* marches at the centre of the regiment, on the side of the guides, twenty-five paces from the flank of the column, having behind him a chief bugler.

The *lieutenant-colonel* on the side of the guides, twelve paces from the flank of the column; he marches on a line with the lieutenants commanding the first platoon of the first squadron.

The *major* marches in the same direction of the lieutenant-colonel, and on a line with the guide of the left of the fifth squadron.

The *adjutant* marches on the side of the guides, two paces from the flank, and on a line with the leading files of the column, to observe the guides and the direction of the march.

The *sergeant-major* marches on the side of the guides, two paces from the flank of the column, and on a line with the guide of the left of the fifth squadron; if the left is in front, he executes on the side of the guides what is prescribed for the adjutant when the right is in front.

The *quartermaster sergeant* having the right general guide behind him, marches on the side opposite the guides, two paces from the flank, and on a line with the first files of the column.

The *captains commanding* march on the side of the guides, and four paces from the flank, and abreast of the centre of their squadrons.

The *second captains* march on the side opposite the guides, four paces from the flank, and abreast of the centre of their squadrons.

The *first lieutenant* of each squadron marches at the head of the first platoon, one pace in advance of the first files, having the guide of the right on his right.

The chiefs of the other platoons march on the side of the guides, one pace from the flank of the column, and abreast of their first files; the file-closers march on the side opposite the guides, one pace from the flank, and on a line with the centre of their platoons.

They all march in a similar manner on the flanks of the column when the left is in front; and, in this case, it is the junior first lieutenant who marches in the column at the head of the fourth platoon of each squadron.

The guide, who in line is posted on the left of the squadron, marches behind the last file of the squadron; when the column is left in front, he takes post on the left of the officer commanding the fourth platoon, one pace in front of the left file.

Order in Column of Platoons.

21. In this order, the distance from one platoon to another, measured from the men of one front rank to those of another front rank, is equal to the front of a platoon; that is to say, it is twelve paces if the platoons are of twelve files, subtracting the depths of two ranks, which is six paces, there remains six paces from the croup of the horses of the rear rank of one platoon, to the heads of the horses of the front rank of the next platoon, a distance which is equal to half of the front of a platoon.

The *colonel* marches at the centre of the regiment, on the side of the guides, twenty-five paces from the flank of the column.

The *lieutenant-colonel* marches on the side of the guides, twelve paces from the flank of the column, and on a line with the lieutenant commanding the first platoon of the first squadron.

The *major* marches in the direction of the lieutenant-colonel, and abreast of the file-closers of the last platoon of the column.

The *adjutant* marches behind the left file of the first platoon, to direct the guide of the column; he should occasionally place himself in front of this file, to satisfy himself that the guides of each platoon preserve the same direction.

The *sergeant-major* marches on the side of the guides, two paces from the flank of the column, and abreast of the file-closers of the fourth platoon of the fifth squadron; and, if the left is in front, he executes on the side of the guides that which is prescribed for the adjutant when the right is in front.

The *quartermaster sergeant* having the right general guide behind him, marches on the side opposite to the guides, two paces from the flank of the column, and on a line with the front rank of the first platoon.

The *captains commanding* march on the side of the guides, four paces from the flank of the column, and habitually abreast of the centre of their squadrons.

The *second captains* march on the side opposite to the guides, four paces from the flank of the column, and abreast of the centre of their squadrons.

The *first* and *second lieutenants* march at the centre of their platoons, one pace from the front rank; those who command the platoons at the head of squadrons, preserve, besides their distance, the ground necessary to enable each squadron, in wheeling into line, to maintain its interval.

The *sergeants*, who are file-closers, march on the side opposite to the guides, behind the third file of their platoons.

When the column marches right in front, the guide at the right of each squadron marches on the right of the first platoon; and the guide of the left places himself as file-closer behind the second file from the left of the fourth platoon.

The post of these sergeants is the reverse when the left is in front. (See Fig. 4.)

Order in Column of Division.

22. The *colonel, lieutenant-colonel, major*, and *adjutant*, are posted as in the column of platoons.

It is the same for the *captains commanding*, and the *second captains*.

The *senior first lieutenant* commands the first division, the other *first lieutenant* the second; they remain, however, at the centre of their platoons.

All the other officers and sergeants of each division are posted as prescribed in the order in column of platoons, the file-closers remaining in their places, on whatever side the guide may be. (Fig. 5.)

Order in close Column of Squadrons.

23. In this order, the distance from one squadron to another is twelve paces, measured from the croup of the horses of the rear rank of one squadron, to the heads of the horses of the front rank of the next squadron.

The *colonel, lieutenant-colonel*, and *major*, are posted as in column of platoons.

The *adjutant* marches behind the left guide of the first squadron, on the alignment of the file-closers, to superintend the direction of the march.

The *sergeant-major* is posted as in column of platoons, and when the left is in front, he performs the same duties as the adjutant when the right is in front.

The *quartermaster sergeant* marches on the side opposite the guides, as in column of platoons.

The *guide of the left* of the left wing of the first squadron moves to the front on the alignment of the officers; he is replaced by the sergeant file-closers of the fourth platoon. If the left is in front, the guide of the right of the fifth squadron places himself on the alignment of the officers to serve as guide; he is replaced by the sergeant file-closer of the first platoon.

All the officers of the squadron, and the file-closers, remain posted as in the order of battle, except the *captains commanding*, who march on the sides of the guides, four paces from the flank, and on a line with the officers of their squadrons. (Fig. 6.)

Cavalry Brigades and Divisions.

24. Two or more regiments of cavalry constitute a brigade; and two or more brigades constitute a division. They are officered in the same manner as infantry brigades and divisions.

Mixed brigades and divisions, composed of regiments of infantry and cavalry, are sometimes formed.

ORGANIZATION OF FIELD ARTILLERY.

25. Field artillery is always formed into *batteries*. A battery may be composed of *four*, *six*, or *eight* pieces; the pieces may be all 6-pounder or 12-pounder guns, or it may be composed of 6-pounder guns and 12-pounder howitzers, or 12-pounder guns and 24 or 32-pounder howitzers.

The number of guns should be double that of the howitzers; for a defensive war, from $\frac{1}{4}$ to $\frac{1}{5}$ of the pieces should be 12-pounder guns, and 24 or 32-pounder howitzers. For an offensive war, from $\frac{1}{7}$ to $\frac{1}{8}$ only should be of these calibres, otherwise the batteries could not be moved with sufficient celerity.

Each piece is followed by a *caisson* for ammunition; each piece and caisson is drawn by four or six horses.

Fig. 5.

ORDER IN COLUMN OF DIVISIONS.

ORDER IN CLOSE COLUMN.

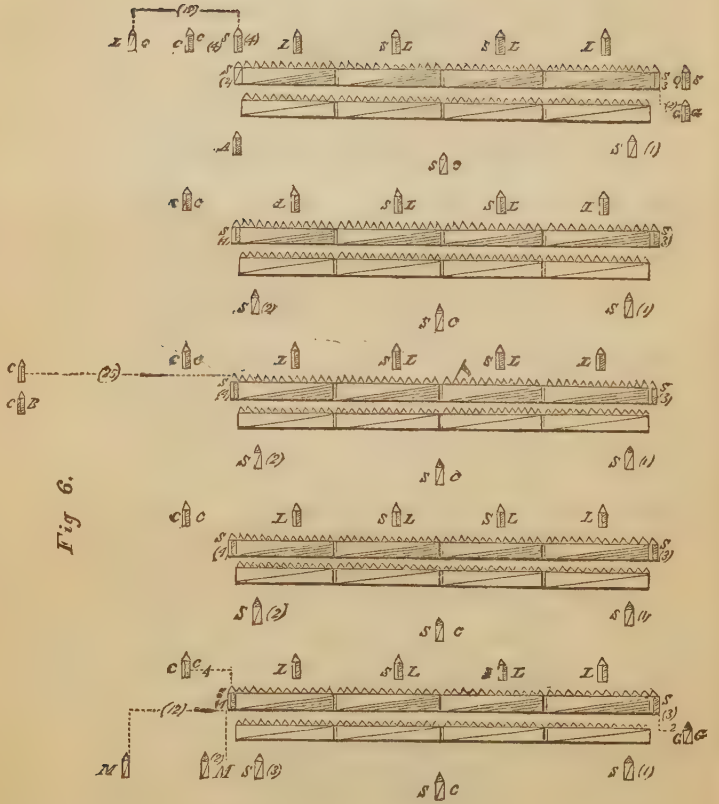


Fig 6.

26. A battery of six pieces will be supposed; it is divided into three sections, the right, centre, and left; each containing two pieces and two caissons. In each section, the pieces are denominated right pieces and left pieces.

The battery is also divided into half batteries, denominated right and left half batteries.

The word *piece* applies to the gun or howitzer, either with or without its limber; and sometimes to the piece and caisson together.

The officers and men required for the service of the battery, are as follows:

One *captain*, who commands the battery.

Four *lieutenants;* the first in rank commanding the right section (of two pieces), the second the left, the third the centre, and the fourth the line of caissons. When half batteries are formed, the first commands the right, and the second the left.

Six mounted *sergeants;* each charged with guiding and superintending a piece.

Twenty-four or thirty-six *drivers*, being one to each pair of horses.

Six *detachments of cannoneers;* each containing nine men in mounted batteries, and eleven in horse artillery, including the *chief of the caisson*, and the *gunner* who commands the detachment. In each detachment of horse artillery, the two last extra men are *horse-holders*, who hold the horses of the detachment while it is serving the piece.

Two *trumpeters* or *buglers*. One *guidon*.

Order in Line.

27. The order in line is that in which the carriages are formed in two lines; the horses all facing the same direction (to the front), the pieces limbered, and each followed or preceded by its caisson.

The interval between the carriages in a mounted battery is fourteen yards; in a horse-artillery battery it is seventeen yards.

The distance between the two lines, in a mounted battery, measured from the rear of the carriages of one line to the heads of the horses of the second, is two yards; in horse artillery the detachments being two yards in rear of their pieces, the second line is two yards in rear of them.

In a mounted battery the cannoneers are at their posts.

The *captain* is four yards in front of the centre; but, during the manœuvres, he goes wherever his presence may be most necessary, and where his commands may be best heard.

Each *chief of section* is in line with his leading drivers, and midway between the leading carriages of his section.

The *chief of the line of caissons* is opposite the centre, four yards behind the rear line of carriages.

Each *chief of piece* is on the left, and near the leading driver of his leading carriage. In horse artillery, when the chiefs of caissons are mounted, each chief of carriage is near its leading driver on the left.

The *trumpeter* is near the captain. (See Fig. 7.)

Order in Column.

28. The order in column is that in which the battery is formed by sections; the carriages being in two files, and each piece being followed or preceded by its caisson.

In a mounted battery, the interval between the two pieces of each section of the column is fourteen yards; the distance between the carriages is two yards. The cannoneers are in file, on each side of their pieces.

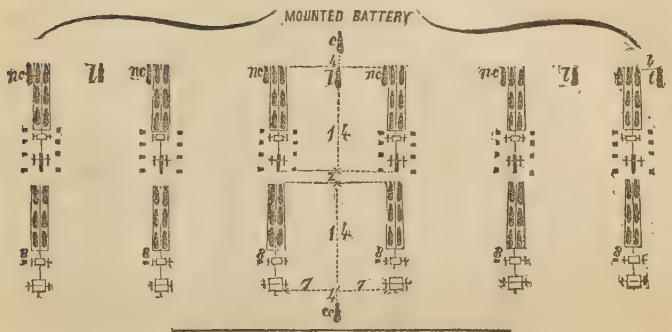
In horse artillery, the interval between carriages is seventeen yards. The distance between the carriages and detachments is two yards. The detachments formed in two ranks, are two yards in rear of their pieces.

The *captain* is generally fourteen yards from the column, and opposite the centre.

Each *chief of section* is in line with his leading drivers, and midway between his leading carriages.

The *chief of the line of caissons* is in line with the captain, on the

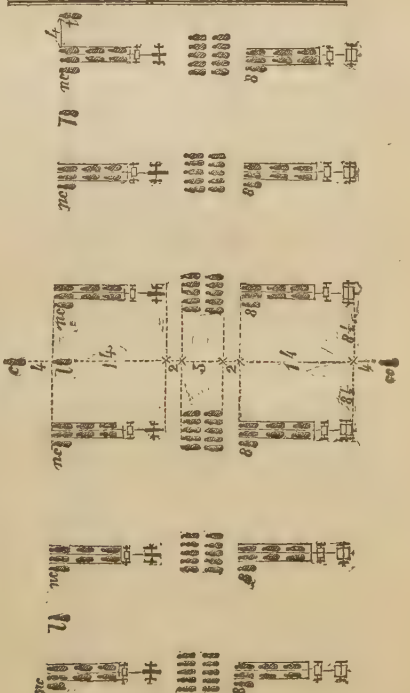
ORDER IN LINE.



ORDER IN LINE.

HORSE ARTILLERY

Fig 7.

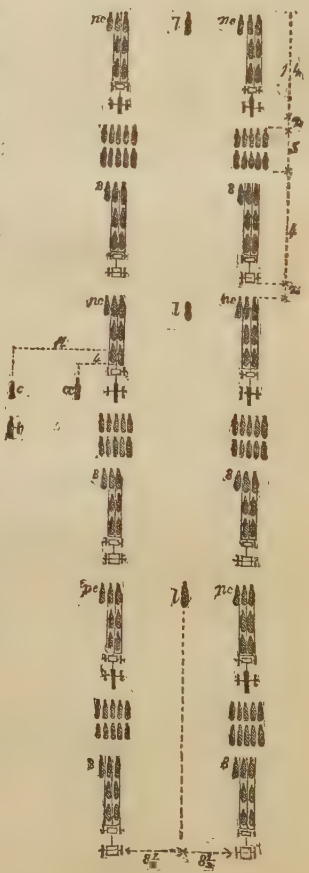


ORDER IN COLUMN.

MOUNTED BATTERY

Fig. 6.

HORSE ARTILLERY



same side of the column, and four yards from it; but he does not change his position to conform to that of the captain.

The *chiefs of pieces* and *caissons* are posted as in line. (See Fig. 8.)

Order in Battery.

29. The order in battery is that in which the pieces are prepared for firing; the pieces, limbers, and caissons being turned towards the enemy, and formed in three parallel lines.

In a mounted battery the interval between the carriages is fourteen yards. The distance between the lines of pieces and limbers is six yards, measured from the end of the handspike to the heads of the leading horses. The distance between the lines of limbers and caissons is eleven yards, measuring from the rear of the limbers to the heads of the leading horses of the caissons. The cannoneers are at their posts.

In horse artillery the interval between the pieces is seventeen yards. The distances between the lines are the same as for the mounted battery. The cannoneers are at their posts, and the detachments of horses are four yards in rear of the limbers.

The *captain* is generally on the left of the chief of the centre section; but he may go wherever his presence is required.

Each *chief of section* is habitually in the centre of his section, half way between the lines of pieces and limbers.

The *chief of the line of caissons* is opposite the centre, four yards in rear of the line of caissons.

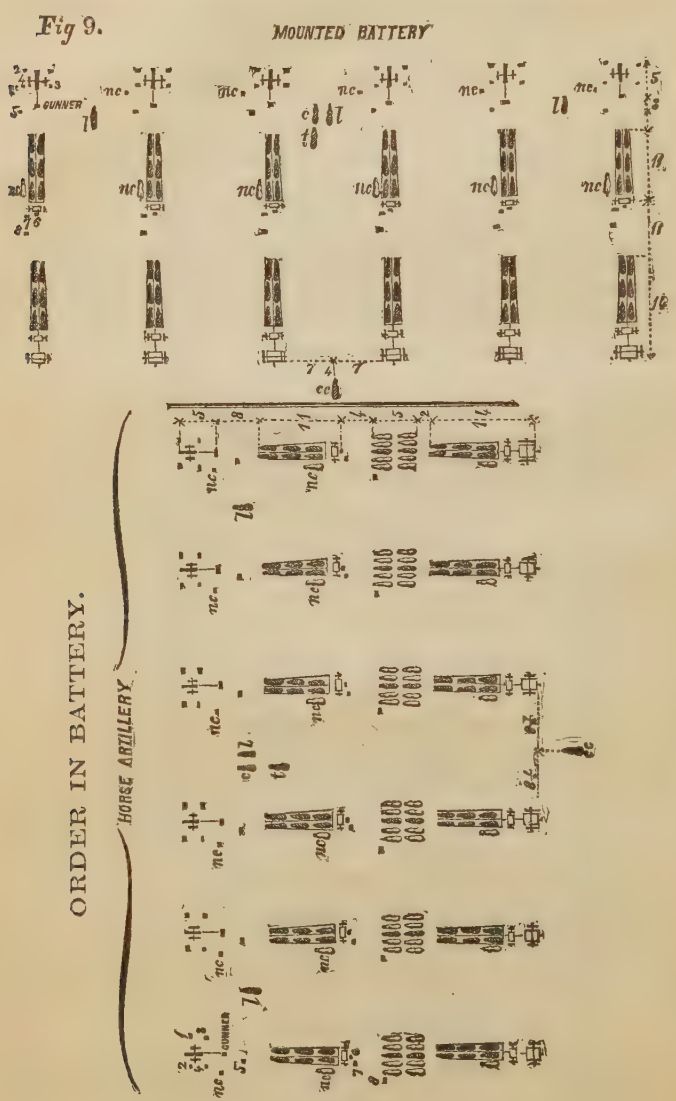
Each *chief of piece* is outside the file on the left of his piece; but near it, and opposite the middle of the trail handspike. During the executions of the firings, he habitually dismounts and gives the reins of his horse to the driver of the wheel horses of the limber.

Each *chief of caisson* is on the left, and four yards in rear of the limber of the piece. In horse artillery he gives the reins of his horse to the driver of the wheel horses of the caissons. (See Fig. 9.)

Two or more Batteries united.

30. When necessary, two or more batteries may be united; they may be formed by sections in one or more parallel columns, or in

Fig 9.



two columns joined, and presenting a front of four pieces with the same intervals as in line. Sometimes they are formed in close column with a front of four or six pieces, and the batteries being spaced a distance apart equal to the interval between two pieces. When the batteries are in line, the intervals between them are twice the intervals between the pieces.

The position of Artillery.

31. Artillery seldom or never acts in an independent capacity, but in conjunction with either infantry or cavalry, or both.

The positions usually assigned batteries, are on the flanks, or in the intervals between regiments and brigades, these intervals being increased sufficiently to admit them. When a battery is brought into action, it is usually thrown forward some 60 paces in front of the main line.

Two mounted batteries are usually assigned to each division of infantry, and one of horse artillery to every division of cavalry. Besides for each army corps of infantry there is a reserve of several batteries.

THE STAFF.

32. The well being and efficiency of an army must depend in a large degree upon the thorough organization of the various departments of the *Staff*.

These are :

An Adjutant-General's Department.
An Inspector-General's Department.
A Quartermaster's Department.
A Commissary Department.
An Engineer Department.
An Ordnance Department.
A Pay Department.
A Medical Department.

33. The officers of the Adjutant-General's Department are, an *adjutant-general*, with such rank as may be assigned him by legisla-

tive enactment, usually that of colonel or brigadier-general, with as many *assistant adjutant-generals* as the exigencies of the service may require.

The adjutant-general should be the chief of the staff of the commander-in-chief. He is the regular channel through which commanders of corps and chiefs of departments communicate with the commander-in-chief; and all orders, special instructions, and general regulations, issued by the commander-in-chief relative to the organization, discipline, and instruction of the forces, are prepared and published by the adjutant-general, conformably to the direction of the commander-in-chief.

When the commander-in-chief takes the field the adjutant-general should accompany him; when an army in the field is in command of any general not the general-in-chief, an assistant adjutant-general is assigned to him as chief of his staff.

An assistant adjutant-general, with the rank of *captain*, is assigned to the commander of each brigade, and one with the rank of *major* is assigned to the general of every division. In each case the assistant adjutant-general is the chief of staff of his general, and his duties are of the same general nature as those of the adjutant-general.

An adjutant is the chief of staff of his regiment.

34. The officers of the Inspector-General's Department are one or more *inspector-generals*, with a *division inspector* for each division, and a *brigade inspector* for each brigade.

To the inspector-general, and the division and brigade inspectors, are assigned the duties of inspecting the troops, fortifications, camps, etc., at stated times; and division and brigade inspectors are specially entrusted with the instruction of regimental officers. The militia laws of Virginia, and some of the other States, impose all the duties of this department upon that of the adjutant-general, in which case the division and brigade inspectors become the chiefs of staff of their divisions and brigades, and discharge all the duties which usually devolve upon the assistant adjutant-general.

35. The officers of the Quartermaster's Department are, a *quartermaster-general*, who has the control of the department; one or

more *assistant quartermaster-generals*, *quartermasters*, and *assistant quartermasters*.

The duties of this department are, to provide quarters and transportation for the troops; storage and transportation for all army supplies; clothing for the troops; camp and garrison equipage; cavalry and artillery horses; fuel; forage; straw, and stationery.

36. The officers of the commissary department are, a *commissary general*, one or more *assistant commissary generals*, and as many *commissaries* and *assistant commissaries* as the exigencies of the service may require.

To this department are assigned the duties of providing all the supplies necessary for the subsistence of the troops.

37. The officers of the engineer department are, a *chief engineer*, and as many officers of engineers as may be necessary to give efficiency to the department.

The duties of this department usually relate to the construction of permanent and field fortifications; works for the attack and defence of places; for the passage of rivers; for the movements and operations of troops in the field; and such reconnaissances and surveys as may be required for these objects.

38. The ordnance department is officered in the same manner as that of the engineers.

This department has charge of all arsenals and armories; all cannon and artillery carriages and equipments; all apparatus and machines for the service and manœuvres of artillery; all small arms and accoutrements and horse equipments; all ammunition; and all materials for the construction of munitions of war.

39. The officers of the pay department are, a *paymaster general*, one or more *deputy paymaster generals*, and one paymaster, ordinarily, to every regiment. When large bodies of troops are serving together, the number of paymasters may be very much reduced without detriment to the service.

To this department belong all the duties pertaining to the payment of the troops when they are in the service of the State.

40. The officers of the *medical department* are a *surgeon general*, with one surgeon to each regiment, and such other surgeons and

assistant surgeons as a proper attention to the health of the troops may require.

The senior medical officer, on duty with any corps in the field, unless otherwise specially ordered by the commanding officer, will be, *ex-officio*, the *medical director;* and will have the general control of the medical officers, and the supervision of the hospitals under their charge.

ARTICLE II.

ARMS.

41. The principal small arms used in warfare at the present day, are the common or smooth bore musket with percussion lock, the rifled musket, the rifle with elongated ball, rifled carbines, pistols and sabres.

42. The smooth bore musket (U. S. service pattern), is four feet ten inches in length from the butt to the muzzle; is provided with a bayonet eighteen inches in length, which fits upon the outside of the muzzle, and locks, so as to prevent its removal by an adversary; it has a bore of 0.69 of an inch in diameter, and carries a leaden ball running 32 to the pound. The musket with its bayonet weighs ten pounds nearly. The fire of the musket is inaccurate, but in a general action, where accuracy of fire is not attainable, it may be made effective up to 300 yards; beyond 400 yards it is useless.

This arm is being rapidly superseded by the rifled musket, or Minié musket, as it is sometimes called.

43. The rifled musket is nothing but the common musket "*rifled;*" the grooves are three in number, they are of equal width, and equal

Fig 10.

Fig 11.

in width to the "*lands;*" the twist of the grooves is a uniform spiral of one turn to six feet in length; the grooves are very shallow

at the muzzle (0.005 of an inch), and deepen slightly as they go down to the breech. The projectile, instead of being round, as in the common musket, is made *cylindro-conical*, the cylindrical portion having three grooves around it, and the base or bottom being hollowed out in a conical form. Fig. 10 is a representation of the exterior of the ball, and Fig. 11 is a section through it showing the shape of the grooves, and the cone at the base. The object of giving the ball a pointed form, is that it may meet with the least possible resistance in its flight through the air; the effect of the grooves is, by the action of the air upon them, to keep the point of the ball in front, and cause it to strike first; the object of making it hollow at the base is, to make it expand when the piece is fired, thereby causing it to fill the grooves, and follow them in its passage out of the piece.

The dimensions of the rifled musket (U. S. pattern) are as follows: length, without bayonet, four feet eight inches; with bayonet fixed, six feet two inches; weight ten pounds; diameter of bore 0·58 of an inch; weight of ball 500 grains.

44. The "altered musket" of the U. S. service, is the old pattern musket rifled; the principal difference between this and the new rifled musket being, that the altered musket has a larger bore, its diameter being 0·69 of an inch. The ball carried by it is heavier, weighing 730 grains, and a heavier charge of powder is necessary.

45. The *rifle*, or Minié rifle, as it is generally called, is rifled in the same manner as the muskets; the diameter of the bore is 0·58 of an inch, the same as the new musket, and the same ball is used; it is shorter than the musket, being but four feet one inch in length, without the bayonet, and not quite six feet with the bayonet fixed; its weight is greater than that of the musket, it being, without the bayonet, ten pounds, within a small fraction, and thirteen with it. The bayonet is not quite twenty-two inches in length; it is made in the form of a heavy sabre, but slightly curved near the point. It is usually worn at the side, and is only fixed when pressed by cavalry, or in a charge.

46. There are several forms of rifles and carbines which are

more or less in use by mounted troops, as Colt's repeating carbines and repeating rifles, Maynard's, Burnside's, and Sharp's rifles, and Sharp's carbine, all of which are breech-loading arms. Colt's arms are intended for both round and elongated balls; in the others, the elongated ball is alone used.

47. The pistols in general use at this time are the largest size of Colt's repeaters; they are rifled, and may be used as carbines by the attachment of an "adjustable breech."

There is also a "pistol carbine" manufactured by the U. S. ordnance department; it is rifled, has the same bore as the rifle and rifle musket, and the same ball may be used, although a ball with a larger cavity than that of the rifle ball is preferable. This arm may be used as a pistol or carbine—in the latter case an adjustable breech becomes necessary.

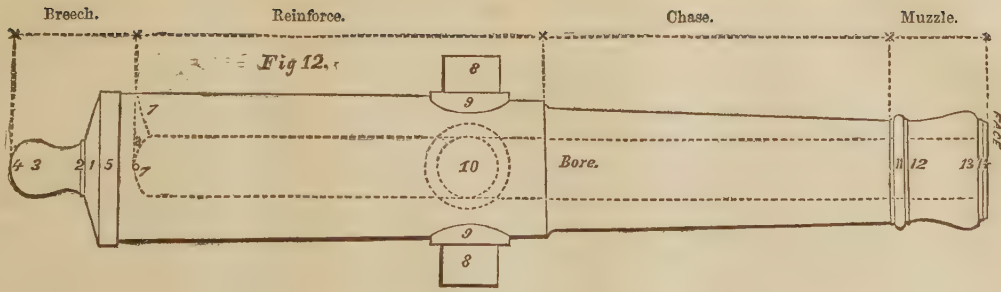
48. All cavalry and artillery troops are armed with sabres, the U. S. cavalry and artillery sabres have steel scabbards, are forty-three and thirty-eight inches long respectively, and are attached to "sling" belts, which are worn around the waist.

49. The fire-arms used in artillery are divided into three classes, *guns*, *howitzers*, and *mortars*. Guns are used to throw solid shot, which cut by their force of percussion, hence they are always fired with large charges of powder, say from one-fifth to one-half the weight of the ball. They are used to strike an object *direct*, and at a distance; or by their *ricochet* fire for reaching objects not attainable by direct fire. They are also used to batter down the walls of fortifications. They are always designated by the weight of solid shot which they carry.

There are six different calibres, which are divided into three classes, according to the position in which they are to be used; they are 6, 12, 18, 24, 32, and 42-pounders.

50. The 6 and 12-pounders, usually made of bronze, but sometimes of cast iron, constitute one class called *field guns;* the 12, 18, and 24-pounders, made of cast iron, constitute a second known as *siege and garrison guns;* and the 32 and 42-pounders, also cast iron, make the third, denominated *sea-coast guns.*

Field guns are used in the field as *light artillery;* siege and gar-



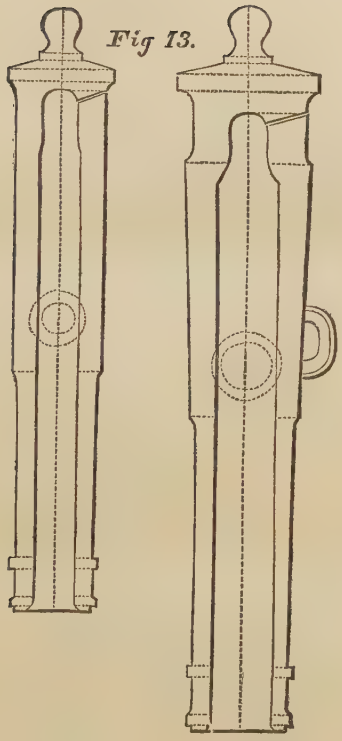
Field 6-pounder Gun. (Bronze.)

Breech. { *Cascable.* { 1. Base of breech. 2. Fillet. 3. Neck. 4. Knob. } 5. Base ring.

Reinforce. { 6. Bottom of the bore. 7. Horizontal and vertical projections of vent and vent-piece. 8. Horizontal projection of trunnions. 9. " " " rimbases. 10. Vertical " " trunnions and rimbases.

Muzzle. { 11. Astragat and fillets. 12. Neck. 13. Swell of Muzzle. 14. Muzzle mouldings. { lip. fillet } } Face.

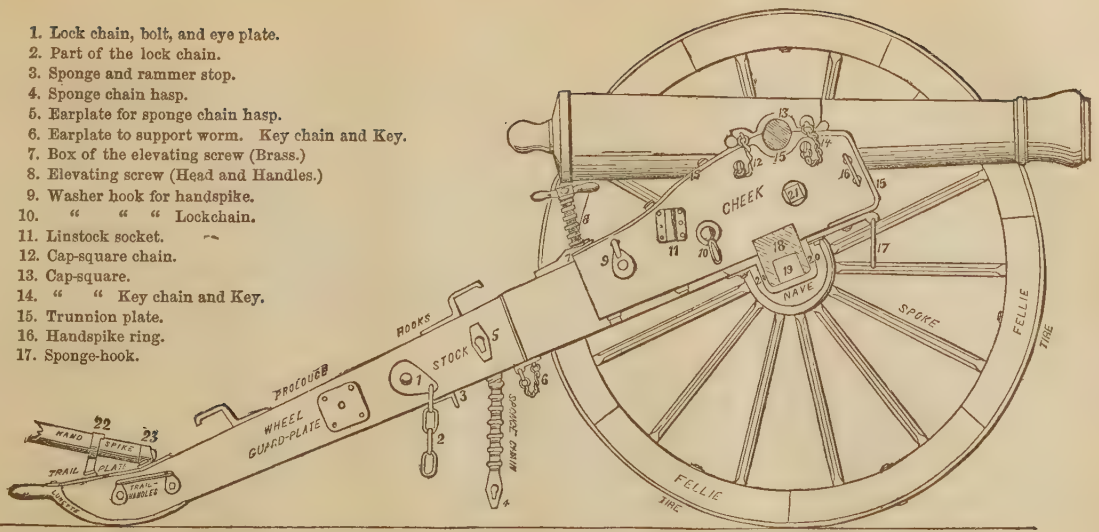
Fig 13.



6-pounder.

Fig 14.

1. Lock chain, bolt, and eye plate.
2. Part of the lock chain.
3. Sponge and rammer stop.
4. Sponge chain hasp.
5. Earplate for sponge chain hasp.
6. Earplate to support worm. Key chain and Key.
7. Box of the elevating screw (Brass.)
8. Elevating screw (Head and Handles.)
9. Washer hook for handspike.
10. " " " Lockchain.
11. Linstock socket.
12. Cap-square chain.
13. Cap-square.
14. " " Key chain and Key.
15. Trunnion plate.
16. Handspike ring.
17. Sponge-hook.



18. Axle body (Wood.)
19. Axle tree (Iron.)
20. Under strap.

9. } Are also the extremities of
10. } the assembling bolts.
21. }

22. Large pointing-ring.
23. Small " "

Stock. { Head, groove, trail, and the rounding of the trail.

rison guns are used in permanent and field fortifications, and in *sieges*, to batter down the walls, etc.; sea-coast guns are principally used in permanent fortifications, on the sea board.

51. A *howitzer* is a gun with a *chamber* in it. It is used principally for firing hollow projectiles, or shells; in order to prevent breaking the shell, and at the same time to give the projectile sufficient velocity, a small charge of powder is fired from a cylindrical chamber at the bottom of the base.

The calibre of howitzers is designated by the weight of the solid shot which they would carry, or by the number of inches that the bore is in diameter. They are divided into *field howitzers, mountain howitzers, siege and garrison,* and *sea-coast howitzers;* field howitzers are 12, 24, and 32-pounders; mountain howitzers are 12-pounders, siege and garrison howitzers are 24-pounders and 8-inch, and sea-coast howitzers are 8 and 10-inch.

52. Field howitzers are used with light batteries in the field; the mountain howitzer is for service in countries too rough to admit the passage of wheeled carriages; siege and garrison howitzers are used in the trenches at sieges, and in the defence of permanent fortifications; and sea-coast howitzers are used in permanent fortifications on the sea-board.

53. There are several kinds of mortars ranging from six to sixteen inches in calibre; the heavy mortars are principally used on the sea-coast; the others are for use in the trenches at sieges, and in the defence of fortifications of all kinds.

54. Pieces of artillery are mounted on their carriages by means of *trunnions;* they are cylinders cast with the gun, having a common axis perpendicular to that of the gun. The trunnions of the 6-pounder gun, and 12-pounder howitzer have the same diameter, so that guns and howitzers may be mounted on the same sized carriages, and serve together in the same battery; the trunnions of the 12-pounder gun, and 24 and 32-pounder howitzer, are also of the same size, so that they may be thrown together in the same battery. Fig. 12 gives the form of the 6-pounder gun, with the names of the parts, and Fig. 13 represents a 12 and 24-pounder howitzer

55. The field gun carriage is composed of two parts; the portion on

which the piece rests when it is fired, and the *limber*. The first part, or carriage proper, is two-wheeled; from the axle proceeds the *stock*, to which are fastened two upright pieces called *cheeks*, upon which the trunnions rest. The end of the stock designated the *trail*, rests on the ground during the firings; at other times it is attached to the limber; the piece gets its proper elevation by means of the *elevating screw*, which works through a plate on the stock. Fig. 14 represents the gun and carriage with the names of the parts, one wheel being removed to show them the better. The limber is the part of the carriage to which the horses are attached; on the end of the trail is an iron plate called the *lunette*, through which there is an opening, which goes over a hook on the axle of the limber called the *pintle-hook*, and is secured in its place by a bolt called the *pintle-bolt*. The limber also carries an ammunition-box, which may be removed at pleasure.

56. Each piece is followed by its *caisson* or carriage, for ammunition. The wheels of the carriage, limber and caisson, are all of the same size; and may, when necessary, replace each other, and a spare wheel is carried on the rear of every caisson. The caisson carries three ammunition boxes, of the same size as the one on the limber, and movable, so that when the box on the limber is empty, it may be exchanged for a full one from the caisson. The boxes are partitioned off into small compartments, each compartment being the receptacle for a charge of ammunition.

Every artillery carriage is drawn by from four to six horses, a driver being required for each pair of horses.

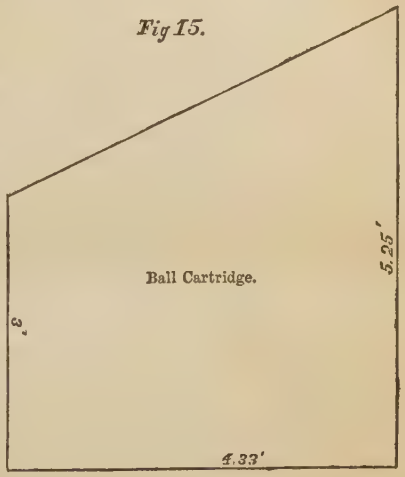
AMMUNITION.

57. When troops are in the field it is not only necessary that they should go with a sufficient supply of ammunition, but that it should be put up in such form as to be convenient for use, and at the same time as well protected as possible from the effects of the weather, etc. Cartridges made of paper or flannel, or some other woollen

goods, are in general use; the former for small arms, and the latter for artillery.

58. To make the cylinders for blank cartridges, the paper is cut in the form represented in Fig. 15, with a pattern. The *former* is a cylinder of hard wood of the same diameter as the ball, concave at one end, and convex at the other. The paper is laid on a table with the side perpendicular to the bases next the workman, the broad end to the left, the former laid on it with the concave end half an inch from the broad edge of the paper, and enveloped in it once. The right hand is then laid flat on the former, and all the paper rolled on it. The projecting end of the paper is now neatly folded down into the concavity of the former, pasted, and pressed on a ball imbedded in the table for the purpose.

Fig 15.



Instead of being pasted, these cylinders may be closed by choking with a string tied to the table, and having at the other end a stick by which to hold it. The convex end of the former is placed to the left, and after the paper is rolled on, the former is taken in the left hand, and a turn made around it with the choking string half an inch from the end of the paper. Whilst the string is drawn tight with the right hand the former is held in the left with the forefinger resting on the end of the cylinder, folding it neatly down upon the end of the former. The choke is then firmly tied with twine.

59. For ball cartridges, the cylinders are made and choked as above, and the choke tied without cutting the twine. The former

is then withdrawn, the ball inserted, and followed by the concave end of the former. Two half-hitches are made just above the ball, and the twine cut off.

For ball and buck-shot cartridges make the cylinder as before, insert three buck-shot; fasten them with a half-hitch, and insert and secure the ball as before.

For buck-shot cartridges make the cylinder as before, insert four tiers of three buck-shot each, as at first, making a half-hitch between the tiers, and ending with a double hitch.

60. To fill the cartridges, the cylinders are placed upright in a box, and the charge poured into each from a conical charger of the appropriate size; the mouths of the cylinders are now folded down on the powder by two rectangular folds, and the cartridges bundled in packages of ten. For this a folding-box is necessary; it is made with but two vertical sides, at a distance from each other equal to five diameters of the ball, and two diameters high.

Put a wrapper in the folding-box, and place in it two tiers of five cartridges each, parallel to each other and to the short sides of the wrapper, the balls alternating; wrap the cartridges whilst in the folding-box, by folding the paper over them, and tie them. A package of twelve *percussion caps* is placed in each bundle of ten cartridges.

The bundles are marked with the number and kind of cartridge.

61. The cartridges for elongated projectiles differ so much from those used with the spherical bullet, that a separate description is necessary.

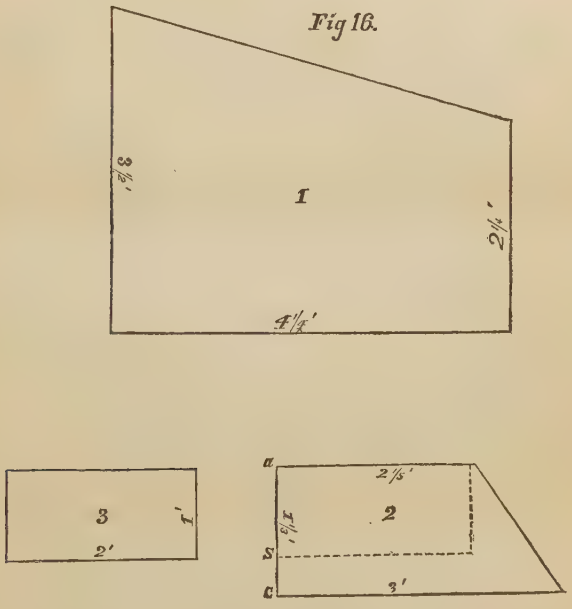
Each cartridge is made of three pieces of paper, the larger piece or cartridge proper, (see Fig. 16, No. 1,) is made of what is known as cartridge paper, but it should not be too strong; the second piece, No. 2, is made of the same or stronger paper, and the third, No. 3, is made of the stoutest rocket paper.

Before enveloping the balls in the cartridges, their cylindrical parts should be covered with a melted composition of one part bees-wax, and three parts tallow; it should be applied hot, in which case the superfluous part would run off. Care should be taken to remove all the grease from the bottom of the ball, lest by coming in contact

with the bottom of the case it penetrate the paper and injure the powder.

62. The sticks on which the cartridges are rolled are made of the same diameter as the bore of the piece; the dimensions given

Fig 16.



are for the U. S. musket or rifle of 0·58 bore. The piece of stiff paper No. 3, is laid upon No. 2, as shown in the dotted line of the figure; the stick is laid down on the side *a*, *b*, *c*, the end being at *b*, and the paper rolled around it; the projecting end is then folded down and pasted. After the cylinder thus made is dry, it is again put on the stick; the stick is then taken in the left hand and laid upon the outer wrapper, the end not far from the middle of the wrapper, (the oblique edge of the wrapper turned from the workman, the longer vertical edge towards his left hand,) and snugly

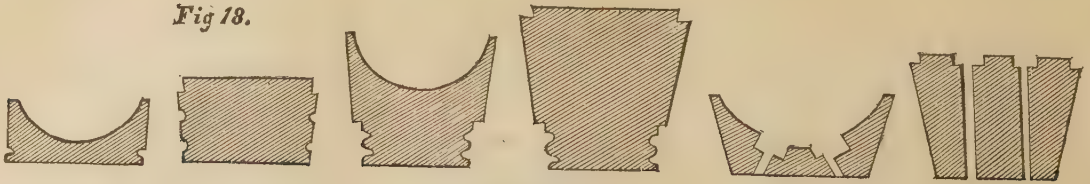
rolled up. The ball is then inserted in the open end of the cartridge, the base resting on the cylinder case, the paper neatly choked around the point of the ball and fastened by tying with cartridge thread. The stick is then withdrawn, sixty grains of powder poured into the case, and the mouth of the cartridge is "pinched" or folded in the usual way. The cartridge is shown in Fig. 17.

63. To use this cartridge, tear the fold and pour out the powder; then seize the ball end firmly between the thumb and forefinger of the right hand, and strike the cylinder a smart blow across the muzzle of the piece; this breaks the cartridge and exposes the bottom of the ball; a slight pressure of the thumb and forefinger forces the ball into the bore clear of all cartridge paper. In striking the cartridge the cylinder should be held square across, or at right angles to the muzzle; otherwise, a blow given in an oblique direction would only bend the cartridge without breaking it.

64. The ammunition for artillery consists of a charge of powder contained in a cartridge-bag, and the projectile, which may be either fixed to, or separate from the cartridge. When the two are fastened together, the whole constitutes a charge of *fixed ammunition.*

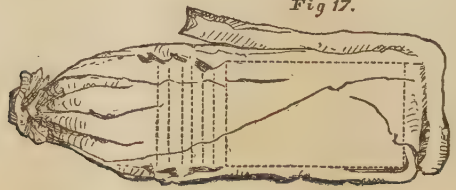
65. The cartridge-bag should be made of merino, bombazette, or flannel, which should be all wool, otherwise fire might be left in the piece after its discharge. The texture and sewing should be close enough to prevent the powder sifting through. Untwilled stuff is preferable. The bag is formed of two pieces, a rectangle, which forms the cylinder, and a circular piece which forms the bottom. As the stuff does not stretch in the direction of its length, the long side of the rectangle should be taken in that direction, otherwise the cartridge might become too large for convenient use with its piece. The material is laid sometimes several folds thick, on a table, and the rectangles and circles marked out on it with chalk, using, for the purpose, patterns made of hard, well-seasoned wood, sheet iron, or tin. The pieces are then cut with the scissors. For a 6-pounder gun and 12-pounder howitzer, the rectangle is 11.4 inches long by 7.25 inches in height, the diameter of the bottom being 4.37 inches — the seam is half an inch wide. For the 12-pounder gun, and 24 and 32-pounder howitzer, the rectangle is 14.2 inches

Fig 18.



Sections of Sabots.

Fig 17.



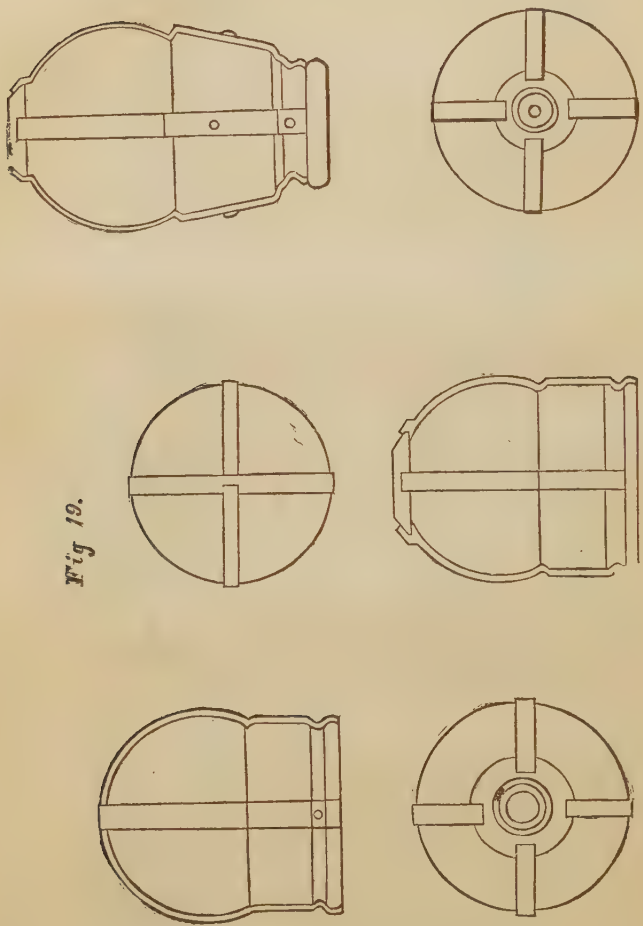


Fig 19.

Strapped Shot and Shells.

by 10, and the diameter of the bottom is 5.25 inches. The short sides of the rectangle are sewed together, and the bottom sewed in. The sewing is done with woollen yarn, twelve stitches to the inch. The two edges of the seam are turned down on the same side, and basted, to prevent the powder from sifting through.

Blank cartridge-bags, or those intended for immediate use, may be made of two rectangular pieces with semi-circular ends sewed together.

66. When special accuracy is required, charges are carefully weighed in delicate scales; but usually the bags are filled by measurement. The powder measures are made of sheet copper; they are cylindrical, and their diameters and height are equal. A measure 3.628 inches in diameter and height, holds one and a quarter pounds of powder, the charge for a 6-pounder gun when it fires solid shot; one of 3.368 inches holds one pound of powder, the charge for the same gun when it fires spherical case or canister; it is also the charge for the 12-pounder howitzer. A measure of 4.24 inches in diameter and height, holds two pounds of powder, the light charge for a 24-pounder howitzer; one of 4.57 inches holds two and a half pounds of powder, the heaviest charge for the 24-pounder howitzer, and the light charge for the 32-pounder. The one pound and a quarter measure, and the two pound measure, making three and a quarter pounds, will be the heavy charge for the 32-pounder howitzer.

67. Blank cartridges, and those for the 12-pounder gun, are, after being filled, simply tied firmly about the neck with twine. Those for fixed ammunition are attached to pieces of wood called *sabots*, by tying them with strong twine; before attaching them to the sabots, however, the sabot must be fastened in the projectile.

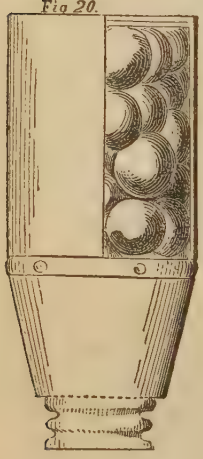
The sabot (Fig. 18), for guns, is cylindrical, or nearly so, in shape, and for howitzers, conical. For shot and spherical case for guns, they have one groove for attaching the cartridge; those for gun canisters, and for 12-pounder howitzer shells, spherical case, and canister, have two grooves. Sabots for 32-pounder and 24-pounder howitzers have no grooves, but are furnished with han-

dles made of a piece of cord, passing through two holes, and fastened by knots countersunk on the inside.

68. The sabots are fastened to shot and shell with strips of sheet tin. For shot there are two straps crossing at right angles (Fig. 19), one passing through a slit in the middle of the other. For shells there are four straps soldered to a ring of tin; the straps are nailed to the sabot. If tin cannot be procured, straps may be made of *strong canvass*, one inch wide, sewed at the point of crossing. The part of the ball which is to be inserted into the socket is dipped in glue; the straps are glued to the ball, and nailed to the sabot.

69. A *canister shot* is a cylinder of tin, of the same diameter as the bore of the piece, filled with small balls. (See Fig. 20.) The cylinder is left open at both ends; after being soldered, it is nailed to the sabot, and a plate of rolled iron placed at the bottom of the sabot. To prevent rusting, the cylinder before filling should be covered with beeswax dissolved in spirits of turpentine, and the balls should be painted or lacquered.

Fig 20.



To fill the canister place it upright on its sabot; put in a tier of balls, filling the interstices with dry sawdust, packing it with a pointed stick, so that the balls will hold by themselves when the case is turned over, and throw out the loose sawdust. Place another tier of balls, and proceed in the same manner until the canister is filled; cover the top tier with a layer of sawdust, and put on the cover, which is a circular plate of sheet iron, settling it well with a mallet in order to compress the sawdust. The top of the cylinder is cut into slits about half an inch long, which are turned down over the cover to secure it.

70. The shot, shell, or canister being secured to the sabot, the cartridge is tied to it, making the charge complete. The mouths of the bag are first twisted and pressed down, so as to settle the powder; they are then opened and the powder smoothed. The

sabot is introduced, and the cartridge drawn up around it, until it reaches the powder; the cartridge is then secured by passing several turns of strong twine around it in the grooves, and tying it, after which the excess of the bag is cut off. (See Fig. 21.)

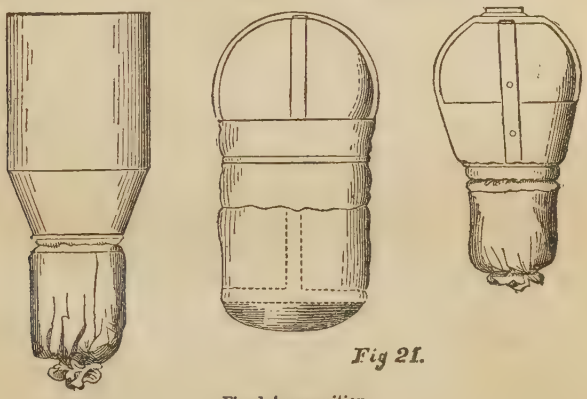
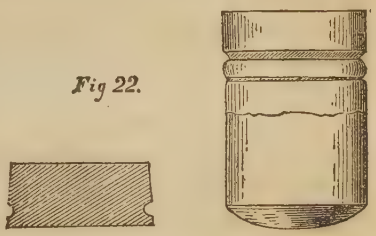


Fig 21.

Fixed Ammunition.

71. The cartridge and projectile for the 24 and 32-pounder howitzers are kept separate; the projectile is attached to the sabot as has been shown (see No. 68, and Fig. 19), and the cartridge to a cylindrical piece of light wood called a *cartridge block.* (Fig. 22.)

Fig 22.



Cartridge Block and Cartridge.

These blocks give a better finish to the cartridge, help to fill the chamber, and keep the cartridge from turning in the bore while the piece is being loaded. They have but one groove; the grooved end is inserted in the mouth of the cartridge, and pressed down upon the powder; the bag is pulled over it and tied with twine in the groove. The mouth of the bag is then turned down, and another tie made over it, which keeps the powder from working up between the block and the bag. The superfluous part of the bag is then cut off.

72. For the greater security of field ammunition, the cartridges are covered with paper cylinders and caps. They are both made together, on the same former, which is a piece of board with slightly inclined sides, and rounded edges. The paper is pasted around this. The requisite length for the cylinder is cut from the smaller end, the rest forming the cap, which is choked at the end from which the cylinder is cut. For choking, a cylindrical former of wood, with a hemispherical end, is used, which should be bored through the end to facilitate the drawing off of the cap. The cylinder fits over the body of the cartridge and a part of the sabot to which it is tied, while the cap fits over the end. When the cap is drawn off, which is always done when the cartridge is placed in the piece, the lower end is left exposed so that the priming wire, or fire from the friction tube, can reach it without going through any paper.

73. Shells are hollow shot, the interior space being formed of a sphere concentric with the outer surface, making the sides of equal thickness. They have a conical opening or *eye*, used to load the shell, and in which is inserted the *fuze* to communicate fire to the charge.

74. To load shells, they are set upon their sabots, the charges measured out in the proper powder measure, and poured in through a copper funnel. The 32-pounder requires a charge of one pound of powder (rifle or musket powder) to burst it, the 24-pounder twelve ounces, and the 12-pounder seven ounces. If now the shell is to be fired by an ordinary fuze, (see article on fuzes,) a conical piece of dry beech is firmly driven into the eye, and then a hole is reamed out through it to receive the fuze, and stopped with a wad of tow, the fuze not to be driven in until the shell is to be fired.

75. *Spherical case*, or *Schrapnel* shot, as they are called, after the English officer who brought them to perfection, are thin-sided shells in which, besides the bursting charge, are placed a number of musket balls. Their sides are much thinner than those of the ordinary shell, in order that they may contain a greater number of bullets; and these acting as a support to the sides of the shell prevent it from being broken by the force of the discharge. The weight of the empty case is about one-half that of the solid shot

of the same diameter. Lead being much more dense than iron, the schrapnell is, when loaded, nearly as heavy as the solid shot of the same calibre; but on account of the less charge which it is necessary to use to prevent breaking the case, their fire is neither so accurate nor the range so great as with the solid shot. But when the schrapnell bursts just in front of an object the effect is terrible, being as great as the discharge of grape from a piece at a very short range.

76. To load a schrapnell shot, the requisite number of balls are placed in; the shell for a 6-pound gun requires thirty-eight balls, that for the 12-pound gun and howitzer seventy-eight, the 24-pound howitzer one hundred and seventy-five, and the 32-pound howitzer two hundred and twenty-five. The balls being inserted, a stick a little less in diameter than the fuze-hole, and having a groove on each side of it, is inserted and pushed to the bottom of the chamber by working the balls aside. The shell is then heated to about the melting point of sulphur, and melted sulphur is poured in to fill up the interstices between the balls. When the shell is cool the stick is withdrawn, and any adhering sulphur is removed.

If a fuze-plug and common fuze are to be used, the charge is placed in and the plug inserted as for shells; but if the Boarmann fuze is to be used, (see the article on fuzes,) the charge is to be inserted, and the stopper and fuze are screwed into their places. The bursting charges are as follows: for the 6-pounder, 2·5 ounces; for the 12-pounder, 4·5 ounces; for the 24-pounder, 6 ounces; and for the 32-pounder, 8 ounces.

77. *A fuse* is a contrivance for communicating fire to the charge in a shell. It consists of a highly inflammable composition, inclosed in a wood, metal, or paper case. The *paper fuze* consists of a conical paper case, containing the composition, whose rate of burning is shown by the color of the case, as follows:

Black	burns	two	seconds	to	the inch.
Red	"	three	"	"	"
Green	"	four	"	"	"
Yellow	"	five	"	"	"

Each fuze is made two inches long, and the yellow burns, consc-

quently, ten seconds. For any shorter time, the fuse is cut with a sharp knife. This fuse is not placed in the shell until it is to be fired, when the wad of tow is removed from the fuze-plug, and the fuze pressed down with the thumb.

78. The *Belgian* or *Boarmann* fuze is the best now in use. The fuze case is made of metal (an alloy of lead and tin), and consists, first (Fig. 23), of a short cylinder, having at one end a horse-shoe shaped indentation, *one* end only of which communicates with the magazine of the fuze placed in the centre. The indentation extends nearly to the other end of the cylinder, a thin layer of metal only intervening. This is graduated on the outside into equal parts, representing seconds and quarter seconds, as represented in Fig. 24. In the bottom of this channel a smooth layer of the composition is placed, with a piece of wick or yarn underneath it; on this is placed the piece of metal represented in Fig. 25, the cross section of it being wedge-shaped; and this is by machinery pressed down upon the composition. The cylindrical opening represented at *a*, Fig. 23, is filled with fine powder, and covered with a sheet of tin, which is soldered in its place, closing the magazine from the external air. Before using the fuse, several holes are punched through this sheet of tin, to allow the flame to escape into the shell. On the side of the fuse the thread of a screw is cut which fits into one on the inside of the fuze hole, and the fuze is screwed into the shell with a wrench.

79. The thin layer of metal over the composition is cut away with a gouge or chisel of any kind, at the point marked with the number of seconds which we wish the fuze to burn. The metal of this fuze being soft, there is danger of its being driven into the shell by the explosive force of the charge. To prevent this, a circular piece of iron, of a less diameter than the fuze, with a hole through its centre, and the thread of a screw on the outside, is screwed into the fuze-hole before the fuze is placed in.

The regularity and certainty of this fuze is very great; one of its most important advantages is, the fact that the shells can be loaded, all ready for use, and remain so for any length of time, perfectly safe from explosion; as the fuze can be screwed to its

Fig 24.

Fig 23.

Fig 25.

place, and the composition never exposed to external fire until the metal is cut through. The only operation to be performed when the shell is to be fired, is to gouge through the metal at the proper point, which may be done with any kind of a chisel, knife, or other instrument.

80. Fire is communicated to the charge in a cannon by means of *priming tubes* and *friction tubes*.

Quill priming tubes are made from quills by cutting off the barrel at both ends, and splitting down the large end for about half an inch, into seven or any other odd number of parts; these are bent outwards, perpendicular to the body of the quill, and from the cup of the tube. Fine woollen yarn is then woven into these slits, like basket work, the end being brought down and tied on the stem; or a perforated dish of paper is pasted on them.

These tubes are filled by injecting into them, with a *tube-injector*, a liquid paste made of mealed powder and spirits of wine; a better method is, not to make the paste too thin, and then press it in with the thumb. A strand of quick match, two inches long, is now laid across the cup, and pasted in them with the powder paste. A small wire is then run through the tube, and remains there until the paste is dry; this leaves an aperture, furnishing a quick communication for the fire along the tube. A paper cap is placed over the cup, and twisted tightly around the tube under the cup.

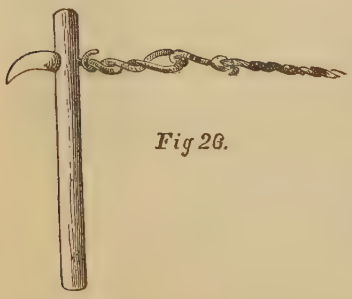


Fig 26.

Tubes are also made of metal, they are either moulded, or formed into tubes by machinery. They are filled, primed, and capped, in the same way as quill tubes.

Priming tubes are now almost entirely superseded by *friction tubes*, which are made by machinery at one of the U. S. arsenals.

81. To fire priming tubes *portfires* are used; they consist of paper cases, filled with a highly inflammable, but slowly burning compo-

sition, the flame of which is very intense and penetrating, and cannot be extinguished with water.

Friction tubes are fired by means of a *lanyard;* this is a stout cord which has a wooden handle at one end, and an iron hook upon the other; the cannoneer puts the hook through the loop in the wire of the friction tube (Fig. 26), and holding the lanyard by the handle, pulls steadily until the wire is withdrawn, when an explosion takes place, induced by the friction of the wire against the composition in the tube.

ARTICLE III.

SCHOOL OF THE SOLDIER.

GENERAL RULES.

82. THE object of this School is the individual instruction of the soldier; it should be taught with the greatest possible care and precision, as on it depends the efficiency of the instruction of the company, which is again so necessary to that of the battalion, and from that of the battalion to the evolutions of the line, where an entire army is manœuvred with as much precision as a single company.

The instructor should never require a movement to be executed until he has fully explained it, and joined example to precept by performing the movement in person. He should accustom the soldier to take for himself the position required, correcting him when necessary, and should labor to prevent the formation of a habit of carelessness in the execution of the movements.

Each movement should be thoroughly understood before passing to another. After they have been properly executed in the order laid down, the instructor should no longer confine himself to that order. The men should be allowed to rest for a few moments, frequently, in the earlier stages of their instruction, and as often at other times as the instructor may think necessary to prevent weariness, which is the prelude to carelessness. When they are at attention, however, he should not allow any looking to the right or left; no changing of position, or laughing, or whispering, etc., so common among volunteers and militia. Here is the place to make the individual soldier, to give him habits of attention, teach him subordination, etc. If he does not acquire them in this school, it will be too late when he is advanced in the company.

At the command REST, the soldier is no longer required to pre-

serve immobility, or to remain in his place. If the instructor wishes merely to relieve the attention of the soldier, he commands, *in place* — REST; the soldier is then only required to keep one of his feet in place; if he wishes to move that foot, the other is first brought up to its proper position.

The *school of the soldier* is divided into three parts, the first comprehending what ought to be taught to recruits without arms; the second, the manual of arms, the loadings and firings; the third, the principles of alignment, the march by the front, the different steps, the march by the flank, the principles of wheeling, and those of change of direction. In this school, the company is broken up into small squads, the number of men in each squad being proportioned to the number of instructors; the squads for the first and second part should be as small as possible, and the men placed in single rank; for instruction in the third part, two or more squads of about equal proficiency should be united.

PART FIRST.

In this part, the men should be without arms, and about one pace apart.

Position of the Soldier.

83. Heels on the same line, as near each other as the conformation of the men will permit; because, if one were in rear of the other, the shoulder on that side would be thrown back.

The feet turned out equally, and forming with each other something less than a right angle; because, if one foot were turned out more than the other, a shoulder would be deranged, and if both feet be too much turned out, it would not be practicable to give the body its proper position.

The knees straight, without stiffness; because, if stiffened, constraint and fatigue would be unavoidable.

The body erect on the hips, inclining a little forward, because it gives stability to the position. Soldiers are at first disposed to project the belly and throw back the shoulders when they wish to hold

themselves erect, from which result many inconveniences in marching; it is, therefore, important that the instructor should be particular to enforce this rule at the beginning.

The shoulders square, and falling equally; if the shoulders are advanced beyond the line of the breast, and the back arched, (the defect called *round-shouldered*,) the man cannot align himself, nor use his piece with skill. In correcting this defect, the instructor will take care that the shoulders are not thrown too much to the rear, causing the body to project, and the small of the back to curve.

The arms hanging naturally; elbows near the body; palms of the hands turned a little to the front, the little finger behind the seam of the pantaloons. These positions are important to the *shoulder-arms*, to prevent the man from occupying more space in ranks than is necessary, and to keep the shoulders in proper position.

The head erect, and square to the front, without constraint; the chin slightly drawn in; the eyes fixed straight to the front, in order to prevent derangement of the shoulders, and striking the ground at the distance of about fifteen paces.

84. The instructor having given the squad the position of the soldier without arms, will now teach the turning of the head and eyes. He will command

1. *Eyes*—RIGHT. 2. FRONT.

At the word *right*, the soldier will turn his head gently, so as to bring the inner corner of the left eye in a line with the buttons of the coat, the eyes fixed on the line of the eyes of the men in the same rank. At the command FRONT the head will resume the direct or habitual position. The instructor will take care that the movement of the head does not derange the squareness of the shoulders, and that the men do not acquire a habit of throwing down the head in dressing.

The movement of *Eyes*—LEFT will be executed by inverse means.

Facings.

85. Facing to the right and left will be executed in one *time*, or pause. The instructor commands:

1. *Squad.* 2. *Right* (or *left*) — FACE.

At the word FACE, raise the *right* foot slightly, turn on the *left* heel, to the right (or left), raising the left toe a little, and then replace the right heel beside the left, and on the same line. The face should always be through a right angle, and should be executed by the feet and legs, the body moving around to the right (or left) without twisting or constraint. The instructor should labor to keep the body steady, and to prevent the formation of the habit of bending the knees, or *springing*.

86. The full face to the rear is always to the *right*, and is executed in two *times*, or pauses. The instructor commands:

1. *Squad.* 2. ABOUT — FACE.

First motion. At the word *about*, the soldier will turn far enough on the left heel to bring the left toe directly to the front, at the same time carrying his right foot to the rear, the hollow opposite to, and full three inches from the left heel, the feet square to each other. The back of the right hand is placed a little above the right hip, and the body is turned to the right sufficiently to give ease to the position.

Second motion. At the word *face*, the soldier raises his toes a little, turns upon both heels, faces to the rear, keeping his legs straight, and draws back the right heel by the side of the left, at the same time dropping his right hand by his side.

Balance Step.

87. Before commencing the march the soldier should always be instructed in the balance step, the object of which is to teach him the free movement of his limbs, while he at the same time preserves perfect squareness of the shoulders, with the greatest steadiness of the body; no labor should be spared to attain this object, which lies at the very foundation of good marching.

The squad being at attention, the instructor commands:

Left foot — FORWARD.

At this command the soldier will throw his left foot gently for-

wards, about twenty-four inches, balancing his body well on the right foot without changing the position of the shoulders, and without the body losing its erect position. The toe should be turned out as in the position of the soldier, the foot about three inches from the ground and very nearly parallel to it, the toe being very slightly depressed.

At the command:

Left foot — REAR.

The left foot is brought gently back, the ball of the left foot close to the right heel, the leg straight, toe raised, and heel depressed.

As soon as the soldier becomes steady in the new position, the instructor repeats the command, *left foot forward*, then *left foot rear*, for several times, and then commands:

HALT,

at which the left foot, either advanced or to the rear, is brought to the right, as in the position of the soldier.

The instructor then causes the soldier to balance on the right foot, by advancing and retiring the right, as has been directed for the left.

The Direct Step.

88. After the soldier is sufficiently instructed in the balance step to execute it on either foot without losing his balance, the instructor will proceed to instruct him in the mechanism of the direct step. For this purpose he will command:

1. *By the numbers — Forward.* 2. ONE.

At the command *one*, the soldier will throw forward the left foot as in the position of *left foot forward*, the instructor then commands:

TWO.

At this command, the weight of the body is thrown forward, the left foot striking the ground without shock, at the distance of twenty-eight inches from the right; the body assumes the perpendicular position, and the right foot is brought up to the position of *right foot rear*.

The right foot is then brought forward at the command *one*, and the step completed at the command *two;* thus the squad is made to advance step by step. The *halt* is executed as in the *balance step.*

89. When the squad is sufficiently instructed in the mechanism of the direct step, the instructor will cause it to take up the march in common time; for this purpose he will command:

1. *Squad forward — Common time.* 2. MARCH.

At the command *forward*, the soldier will throw the weight of his body on the right leg, without bending the left knee.

At the command *march*, he will smartly, but without a jerk, carry straight forward the left foot twenty-eight inches from the right, the sole near the ground, the leg extended, the toe a little depressed, and both it and the knee slightly turned out; he will at the same time throw the weight of the body forward, and plant flat the left foot, without shock, precisely at the distance where it finds itself from the right when the weight of the body is brought forward, the whole of which will now rest on the left foot. The soldier will next, in like manner, advance the right foot and plant it as directed for the left, the heel twenty-eight inches from the heel of the left foot, and thus continue the march without crossing the legs, or striking one against the other, without turning the shoulders, and always preserving the face direct to the front. Common time is executed at the rate of ninety steps to the minute.

When the instructor wishes to arrest the march he commands:

1. *Squad.* 2. HALT.

The command *halt* should be given just as one foot has come to the ground, and the other is raised for making the next step; the soldier instinctively completes the pace with the raised foot, and brings the other firmly to its place beside it. By careful attention to this rule a large command may be as readily halted at the same instant, as a single individual.

90. The principles of the step in quick time are the same as for common time; it is executed, however, at the rate of 110 steps per minute. After the soldier is well established in the length and

swiftness of the step at common time, he should be practised in quick time, as it is the pace best adapted to marches, the manœuvres, etc.

The instructor wishing the squad to march in quick time, commands:

1. *Squad forward.* 2. MARCH.

Principles of the Double Quick Step.

91. The length of the double quick step is thirty-three inches, and its swiftness is at the rate of 165 steps per minute. This step is designed especially for light troops, such as light infantry and riflemen, and to them it is indispensable; its utility has, however, been so frequently demonstrated of late years, as to make it proper that it should form a part of the instruction of all infantry troops.

The instructor wishing to teach his squad the principles and mechanism of the double quick step, commands:

1. *Double quick step.* 2. MARCH.

At the command *double quick step*, the soldier will raise his hands to a level with his hips, the hands closed, the nails towards the body, the elbows to the rear and well drawn in towards the body.

At the command *march*, he will raise his left knee as high as possible without derangement of the body, keeping his leg from the knee down in a vertical position, the toe depressed; he will then replace his foot in its former position. At the command *two*, he will execute with the right leg what has just been prescribed for the left, and the alternate movement of the legs at the commands *one, two*, will be continued until the command:

1. *Squad.* 2. HALT.

At the command *halt*, the soldier will bring the foot which is raised by the side of the other, and at the same time dropping his hands by his side will resume the position of the soldier without arms.

When the squad has learned to execute the step properly, the instructor will repeat the words *one, two*, in more rapid succession,

and will finally drop them, leaving the files to execute the step in their own time. The instructor will see that the step is taken in rapid succession, and that none of the files lose the step.

92. The soldier being sufficiently established in the principles of this step, the instructor will command :

1. *Squad, forward.* 2. *Double quick.* 3. MARCH.

At the command *forward,* the soldier will throw the weight of his body on the right leg, without bending the left knee.

At the command *double quick,* he will place his arms as indicated above.

At the command *march,* he will carry forward the left foot, and plant it, the toe first, at the distance of thirty-three inches from the right, the leg slightly bent, and the knee somewhat raised; he will then execute with the right foot what has just been prescribed for the left. This alternate movement of the legs will take place by throwing the weight of the body on the foot that is planted, and by allowing a natural, oscillatory motion to the arms. The feet should not be raised too much, a common fault with beginners, and the body should incline slightly forward.

The double quick step may be executed with different degrees of swiftness. Under urgent circumstances, the cadence of this step may be increased to 180 per minute. At this rate a distance of 4000 yards would be passed over in about twenty-five minutes.

The men should also be exercised in running; the principles are the same as for the double quick step, the only difference consisting in a greater degree of swiftness.

It is recommended in marching in double quick time, or the run, that the men should breathe as much as possible through the nose, keeping the mouth closed.

PART SECOND.

General Rules.

93. The instructor will not pass the soldiers to this second part until they are well established in the position of the body, and in the manner of marching at the different steps.

In the manual of arms each command will be executed in one *time* (or pause), but this time will be divided into motions, the better to make known the mechanism, and to secure uniformity and precision in the movements.

The rate (or swiftness) of each motion, in the manual of arms, is fixed at the ninetieth part of a minute; but the instructor will, at first, look more particularly to the execution of the motions, without requiring a nice observance of the cadence, to which he will bring the men progressively, and after they have become a little familiarized with the use of the weapon.

The motions relative to the cartridge, to the rammer, and to the fixing and unfixing of the bayonet, cannot be executed at the rate prescribed; or even with uniform swiftness; the instructor will, however, labor to have these motions executed with promptness and regularity.

The last syllable of the command will decide the brisk execution of the first motion of each time (or pause). The commands *two*, *three*, and *four*, will decide the brisk execution of the other motions. As soon as the men comprehend well the positions of the several motions of a time, they will be taught to execute the time without resting on its motions; the mechanism of the time must, however, be observed, as well to give perfect use to the weapon, as to prevent carelessness or slighting of the motions. When the men have acquired sufficient proficiency to execute the times without resting, the instructor must be careful to have the proper cadence observed; great promptness in the execution of the motions is not incompatible with the observance of a pause between them, so that they may be executed at the prescribed rate — that is, of ninety to the minute. Those instructors who insist most upon the strict observance of this rule, are those whose squads execute the manual in the best manner.

Principles of Shouldered Arms.

94. Each soldier being in *the position of the soldier*, the instructor will cause him to turn up the left hand without bending the wrist, the left fore-arm only acting. The instructor will raise the piece perpendicularly, and place it as follows:

(Fig. 27.) The piece in the left hand, the arm very slightly bent, the elbow back near the body, the palm of the hand pressing on the outer flat of the butt; the outer edge of the latter on the upper joints of the fingers, the heel of the butt between the middle and fore-fingers, the thumb on the front screw of the butt plate, the

Fig. 27.

Fig. 28.

remaining fingers under the butt, the butt more or less kept back according to the conformation of the man, so that the piece, seen from the front, shall appear perpendicular, and, also, that the movement of the thigh, in marching, may not raise it or cause it to waver; the stock, below the tail-band, resting against the hollow of the shoulder, just within the joint, the right arm hanging naturally as prescribed in the *position of the soldier.*

Soldiers on first bearing arms are liable to derange their position,

and particularly to distort the shoulders, which, causing the musket to lose its point of support, they drop the left hand to prevent the musket from falling from the shoulder, which again causes that shoulder to droop, a curvature of the side, spreading of the elbows, etc. The instructor will be careful to correct all these faults by continually rectifying the position; he will avoid fatiguing the men too much in the beginning, but labor to render this position so natural and easy by degrees, that they may remain in it a long time without fatigue.

The instructor will also take great care that the musket be not carried too high or too low; if too high, the left elbow would spread out, the soldier would occupy too much space in ranks, and the musket would be unsteady; if too low, the files would be too close, the man would not have the necessary space to handle his musket with facility, the left arm would become too much fatigued, the shoulder would droop, etc.

The manual of the musket will be taught in the foll[redacted]g order: The instructor commands:

Support — ARMS.

One time and three motions.

95. *First Motion.* (Fig. 28.) With the right hand se[redacted]he small of the stock briskly, four inches below the lock, raising the piece a little, but not turning it.

Second Motion. Take the left hand from the butt; extend the left fore-arm upward across the body, and under the hammer, the left hand flat on the right breast.

Third motion. Drop the right arm smartly to its position.

The squad being at *support arms*, the instructor commands:

Carry — ARMS.

One time and three motions.

96. *First motion.* Carry quickly the right hand to the small of the stock.

Second motion. Place the left hand under the butt, as in the position of shoulder arms.

Third motion. Let fall smartly the right hand to its position, and drop with the left, at the same time, the piece into the position of *shoulder arms.*

Present — ARMS.

One time and two motions.

97. *First motion.* (Fig. 29.) Turn the piece with the left hand, the lock out, and seize the small of the stock at the same time with the right hand, the piece perpendicular and detached from the shoulder, the left hand remaining under the butt.

Fig. 29.

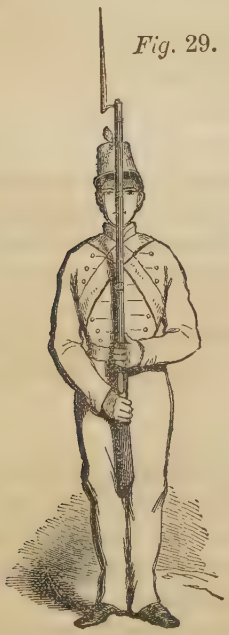


Fig. 30.

Second motion. Complete the turning inwards of the piece, so as to bring it erect before the centre of the body, the rammer to the front, the right hand under and against the guard; seize it smartly at the same time with the left hand just above the lock, the

thumb extended along the barrel and on the stock, the left fore-arm resting on the body without constraint, and the hand at the height of the elbow.

Shoulder — ARMS.

One time and two motions.

98. *First motion.* Turn the piece with the right hand, the barrel to the front, raise and support it against the left shoulder with the right hand, drop the left under the butt, the right hand resting on, without grasping, the small of the stock.

Second motion. Drop quickly the right hand into its position.

Order — ARMS.

One time and two motions.

99. *First motion.* Drop the piece smartly by extending the left arm, seize it at the same time with the right hand, above and near the tail-band; quit the hold of the left hand, and carry the piece opposite to the right shoulder, the rammer to the front, the little finger behind the barrel, the right hand supported against the hip, the butt three inches from the ground, the piece erect, the left hand hanging by the side.

Second motion. Let the piece slip through the right hand to the ground without shock, and take the position about to be described.

Position of Order Arms.

100. (Fig. 30.) The hand low, the barrel between the thumb and forefinger extended along the stock; the other fingers extended and joined; the muzzle about two inches from the right shoulder; the rammer in front; the toe of the butt against, and in a line with, the toe of the right foot, the barrel perpendicular.

101. When the instructor wishes to give repose in this position, he commands:

REST.

At this command the soldiers will not be required to preserve silence or steadiness. They, however, will not quit their rank without special permission.

102. When the instructor wishes the men to pass from this position to that of silence and steadiness, he commands:

1. *Attention.* 2. SQUAD.

At the second word, the men will reserve the position of *order arms*, and remain firm and silent.

Shoulder — ARMS.

One time and two motions.

103. *First motion.* Raise smartly the piece with the right hand, carry it against the left shoulder, turning it, so as to bring the barrel to the front; at the same time place the left hand under the butt, and slip the right hand down to the lock.

Second motion. Let the right hand fall briskly to its position.

Charge — BAYONET.

One time and two motions.

104. *First motion.* Make a half face to the right on the left heel, bring the left toe directly to the front, at the same time place the right foot behind, and at right angles with the left, the hollow of the right foot opposite to, and about three inches from the left heel; turn the piece with the left hand, the lock outwards, and seize the small of the stock at the same time with the right hand, the musket perpendicular, and detached from the shoulder, the left hand under the butt.

Second motion. Bring down the piece with the right hand, letting it fall firmly into the left, the latter seizing it a little in advance of the tail band, the barrel up, the left elbow near the body, the right hand against the hip, the point of the bayonet as high as the eye. (Fig. 31.)

Shoulder — ARMS.

One time and two motions.

105. *First motion.* Face to the front by turning on the left heel, bring up the right by the side of the left heel; at the same time bring up the piece with the right hand to the left shoulder, and place the left hand under the butt.

Second motion. Let the right hand fall promptly into its position

Load in ten times.

1. LOAD.

One time and two motions.

106. *First motion.* Drop the piece by a smart extension of the left arm, seize it with the right hand above and near the lower band; at the same time carry the right foot forward, the heel against the hollow of the left foot.

Second motion. Drop the piece with the right hand along the left thigh, seize it with the left hand above the right, and with the left hand let it descend to the ground, without shock, the piece touching the left thigh, and the muzzle opposite the centre of the body; carry the right hand quickly to the cartridge-box and open it. (Fig. 32.)

2. *Handle* — CARTRIDGE.

One time and one motion.

107. Seize a cartridge with the thumb and the next two fingers, and place it between the teeth.

3. *Tear* — CARTRIDGE.

One time and one motion.

108. Tear the paper down to the powder, hold the cartridge upright between the thumb and two next fingers, near the top; in this position place it in front of and near the muzzle, the back of the hand to the front.

4. *Charge* — CARTRIDGE.

109. Fix the eye on the muzzle, turn quickly the back of right hand towards the body, in order to discharge the powder into the barrel, raise the elbow to the height of the wrist, shake the cartridge, force it into the muzzle, and leave the hand reversed, the fingers closed, but not clenched. (Fig. 33.)

5. *Draw* — RAMMER.

One time and three motions.

110. *First motion.* Drop the right elbow smartly, and seize the rammer between the thumb and fore-finger bent, the other fingers

Fig. 31.

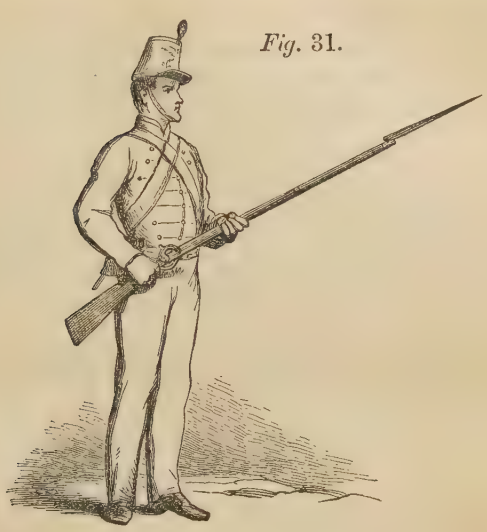


Fig. 32.

Fig. 33.

shut; draw it smartly, extending the arm, seize the rammer again at the middle between the thumb and fore-finger, the hand reversed, the palm to the front, the nails up, the eyes following the movement of the hand, clear the rammer from the pipes by again extending the arm.

Second motion. Turn rapidly the rammer between the bayonet and the face, closing the fingers, the rammers of the rear rank grazing the right shoulders of the men of the same file in front, the rammer parallel to the bayonet, the arm extended, the butt of the rammer opposite to the muzzle but not yet inserted, the eyes fixed on the muzzle.

Third motion. Insert the butt of the rammer, and force it down as low as the hand.

6. *Ram*—Cartridge.

One time and one motion.

111. Extend the arm to its full length to seize the rammer between the right thumb extended and the fore-finger bent, the other fingers closed; with force ram home twice and seize the rammer at the small end between the thumb and fore-finger bent, the other fingers closed, the right elbow touching the body.

7. *Return*—Rammer.

One time and three motions.

112. *First motion.* Draw the rammer briskly, re-seize it at the middle between the thumb and fore-finger, the hand reversed, the palm to the front, the nails up, the eyes following the hand, clear the rammer from the barrel by extending the arm.

Second motion. Turn the rammer rapidly between the bayonet and the face, closing the fingers, the rammers of the rear rank grazing the right shoulders of the men in the same file in front, the rammer parallel to the bayonet, the arm extended, the little end of the rammer opposite to the first pipe, but not yet inserted, the eyes fixed on that pipe.

Third motion. Insert the small end, and with the thumb, which

will follow the movement, force it as low as the middle band; raise the hand quickly, a little bent, place the little finger on the butt of the rammer, and force it down; lower the left hand on the barrel to the extent of the arm without depressing the shoulder.

8. *Cast* — ABOUT.

One time and two motions.

113. *First motion.* With the left hand bring up the piece vertically against the left shoulder, seize it smartly with the right hand at the small of the stock, and slide the left hand down as low as the chin.

Second motion. Make a half face to the right on the left heel, bring the left toe to the front, place the right foot at the same time close behind, and at right angles with the left, the hollow of the right foot against the left heel; carry the piece opposite to the right shoulder; bring down the piece with the right hand into the left, which will seize it at the tail band, the thumb extended on the stock, the butt under the right fore-arm, the small of the stock against the body, and about two inches under the right breast, the muzzle at the height of the eye, the left elbow supported against the side, the right hand grasping the small of the stock. (Fig. 34.)

9. *Prime.*

One time and one motion.

114. Place the thumb of the right hand on the hammer (the fingers remaining under and against the guard), and half-cock the piece; brush off the old cap, and with the thumb and first two fingers of the right hand take a cap from the pouch, place it firmly on the cone by pushing it down with the thumb, and seize the piece by the small of the stock.

10. *Shoulder* — ARMS.

One time and two motions.

115. *First motion.* Face to the front by turning on the left heel; at the same time bring the piece briskly with the right hand to the left shoulder, and place the left hand under the butt.

Second motion. Let the right hand fall smartly into its position at *shoulder arms.*

READY. (From the position of *prime.*)

One time and one motion.

116. Place the thumb of the right hand on the hammer (the fingers remaining under and against the guard), cock the piece, and seize the small of the stock.

READY. (From the position of *shoulder arms.*)

One time and four motions.

117. *First motion.* Turn the piece with the left hand, the lock to the front, seize it at the small of the stock with the right hand; at the same time make a half face to the right on the left heel, bringing the left toe to the front, and placing the right foot behind,

Fig. 34.

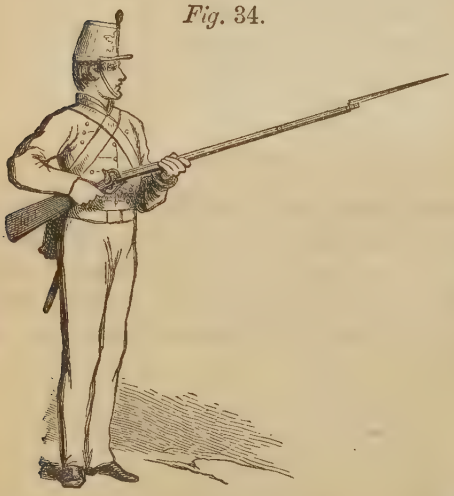


Fig. 35.

and at right angles to the left, the hollow of the foot against the left heel.

Second motion. Bring the piece with the right hand to the middle of the body, place the left hand just above the lock, the thumb extended along the stock at the height of the chin, the counter (or S)-plate turned towards the body, the rammer obliquely to the left and front.

Third motion. Place the thumb on the hammer, the fore-finger under and on the guard, the other three fingers joined to the first, the elbow at the height of the hand.

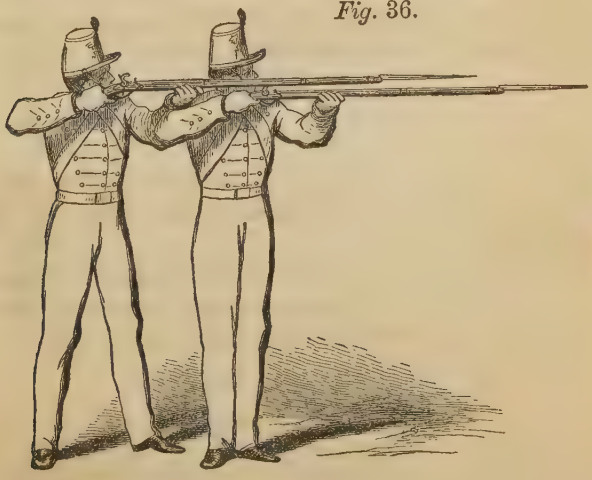
Fourth motion. Close the right elbow smartly to the body in cocking, without bending the wrist, seize the piece by the small of the stock, let it descend along the body in the left hand to the tail-band, which will remain at the height of the shoulder. (Fig. 35.)

AIM.

One time and one motion.

118. Raise the butt to the shoulder, the left elbow a little down, shut the left eye, direct the right along the barrel, drop the head

Fig. 36.



upon the butt to catch the object, and place the fore-finger on the trigger. The rear rank will at the same time, carry the right foot about eight inches towards the left heel of the man next on his right. (Fig. 36.)

FIRE.

One time and one motion.

119. Apply the fore-finger with force to the trigger without further lowering or turning the head, and remain in that position.

LOAD. (From the *Fire.*)

One time and two motions.

120. *First motion.* Bring back the piece quickly with both hands, depress the butt strongly by extending the right arm, and carry it with the arm thus extended to the left side, the barrel to the front and opposite to the left shoulder, the left hand at the height of the chin, the back of the hand to the front, the left fore-arm touching the stock; at the same time face to the front and carry the right foot forward, the heel against the hollow of the left foot.

Second motion. Let go the handle with the right hand, let the piece descend through the left to the ground, without shock, and take the position of the second motion of *load.*

Shoulder — ARMS. (From the *Fire.*)

One time and two motions.

121. *First motion.* Bring back the piece with both hands, face to the front, carry the piece against the left shoulder, and place the left hand under the butt.

Second motion. Let the right hand fall smartly to its position.

The squad being in the position of *aim*, the instructor, to habituate the soldiers to wait for the word *fire*, sometimes commands:

Recover — ARMS.

One time and one motion.

122. Withdraw the finger from the trigger, throw up the muzzle smartly, and retake the position of the fourth motion of *ready.*

The men being in this position, if the instructor wishes them to come to a shoulder, he commands:

Shoulder — ARMS.

123. At the word *shoulder*, the squad will face to the front, and bring their pieces to the middle of the body again; the left thumb at the height of the chin, the little finger just above the lock; next place the right thumb on the head of the hammer, support the forefinger on the trigger, sustain the hammer carefully in its descent at the same time, to the position of half-cock, then seize the small of the stock with the right hand. At the word *arms*, carry the piece to the shoulder smartly, and take the position of *shoulder arms*.

To load in four times (or *pauses*).

124. The instructor commands:

1. *Load in four* TIMES. 2. LOAD.

Execute the first time of loading, handle cartridge, tear cartridge, charge cartridge.

TWO.

125. Draw rammer, enter it as far as the hand, and ram twice.

THREE.

126. Return rammer, cast about, and prime.

FOUR.

127. Execute the tenth time of loading.

128. The soldiers being at a shoulder, when the instructor may wish to return bayonets, he commands:

Unfix — BAYONETS.

One time and three motions.

First motion. Drop the piece by a smart extension of the left arm, seize it with the right hand above and near the tail-band.

Second motion. Drop the piece with the right hand along the

left thigh, seize it with the left hand above the right, lengthen out the left arm, rest the butt on the ground, without shock, and carry the right hand at the same time to the bayonet, with the thumb lower the clasp against the stop, and then seize the bayonet at the socket and shank.

Third motion. Wrest off the bayonet, return it to the scabbard, place the little finger on the butt of the rammer, lower the left hand along the barrel in extending the arm, without depressing the shoulder.

Shoulder — ARMS.

One time and three motions.

129. *First motion.* Raise the piece with the left hand along the left side, the hand at the height of the chin, the fore-arm touching the piece, the barrel to the front; drop at the same time the right hand to seize the piece a little above the handle, the fore-finger touching the cock, and the thumb on the counter-plate.

Second motion. Raise the piece with the right hand, drop the left, and place it under the butt, bring back the right heel to the side of the left, and on the same line; support the piece with the right hand against the shoulder, in the position prescribed for *shoulder arms*, the right hand resting on, without grasping, the piece.

Third motion. Let fall smartly the right hand into its position by the side of the thigh.

Fix — BAYONET.

130. *First and second motions.* As the first and second motions of *unfix bayonet*, except that at the end of the second motion, the right hand will go to seize the bayonet by the socket and shank, so that the lower (now upper) end of the socket shall extend about an inch above the heel of the palm.

Third motion. Draw the bayonet from the scabbard, carry and fix it on the muzzle, turning the clasp towards the body with the right thumb; place the little finger on the head of the rammer, lower the left hand along the barrel, in extending the arm.

Shoulder — ARMS.

The same as from the *unfix bayonet.*

Secure — ARMS.

One time and two motions.

131. *First motion.* Seize quickly the piece with the right hand, the thumb on the counter-plate, and the fore-finger against the cock; detach the piece from the shoulder at the same instant, the barrel to the front, seize it at the tail-band with the left hand, the thumb extended on the rammer, the piece erect, opposite to the shoulder, the left elbow on the piece.

Second motion. Reverse the piece, pass it under the left arm, the left hand remaining at the tail-band, the thumb on the rammer to prevent it from sliding out, the little finger resting against the hip, and the right hand falling at the same time into its position. (Fig. 37.)

Shoulder — ARMS.

One time and two motions.

132. *First motion.* Raise the piece with the left hand, but not too suddenly, lest the rammer should fly out; seize the handle with the right hand to support it against the shoulder, quit the hold of the left hand, and place quickly this hand under the butt.

Second motion. Let fall smartly the right hand into its position; drop at the same time the piece into the position of *shouldered arms.*

Trail — ARMS.

One time and two motions.

133. *First motion.* As the first motion of *order arms.*

Second motion. Incline a little the muzzle to the front, the butt to the rear, and about three inches from the ground, the right hand, supported at the hip, will sustain the piece so that the men of the rear rank may not touch with their bayonets the men in front of them. (Fig. 38.)

Shoulder — ARMS.

134. At the command *shoulder,* raise the piece perpendicularly in the right hand; at the command *arms,* execute what has been prescribed for the shoulder from the position of *order arms.*

To right shoulder, shift — ARMS.

One time and one motion.

135. Turn the piece with the left hand, the lock to the front, seize it at the same time with the right hand at the handle, place it on the right shoulder, the left hand not quitting the butt, the lock-plate upwards, the muzzle up; sustain the piece in this position by placing the right hand on the flat of the butt; let fall the left hand by the side. (Fig. 39.)

Shoulder — ARMS.

136. Raise the piece by extending the right arm, seize it with the left hand above the lock, carry it against the left shoulder, turning the barrel to the front, the right hand being at the handle, place the left hand under the butt, and let the right fall into its position.

Arms — AT WILL.

One time and one motion.

137. Carry the piece at pleasure on either shoulder, or with one or both hands, the muzzle always up.

Shoulder — ARMS.

138. Retake smartly the position of *shoulder arms.*

Inspection of Arms.

139. The squad being at ordered arms, and having the bayonet in the scabbard, if the instructor wishes to cause an inspection of arms, he will command:

Fig. 37.

Fig. 38.

Fig. 39.

Fig. 40.

Inspection of — ARMS.

One time and three motions.

First motion. Face to the right once and a half on the left heel, carrying the right foot perpendicularly to the rear of the alignment, about six inches from, and at right angles with, the left foot; seize promptly the piece with the left hand a little above the middle band, incline the muzzle to the rear without displacing the heel of the butt, the rammer turned towards the body; carry at the same time the right hand to the bayonet and seize it as has been prescribed, No. 130.

Second motion. Draw the bayonet from the scabbard, carry and fix it on the muzzle; seize next the rammer, draw it as has been explained in loading it twelve times, and let it glide to the bottom of the bore.

Third motion. Face promptly to the front, seize the piece with the right hand, and retake the position of ordered arms.

The instructor will then inspect in succession the piece of each man, in passing along the front of the rank. Each, as the instructor reaches him, will raise smartly his piece with his right hand, seize it with the left between the tail-band and the feather-spring, the lock to the front, the left hand at the height of the chin, the piece opposite to the left eye (Fig. 40); the instructor will take it with the right hand at the handle, and, after inspecting it, will return it to the soldier, who will receive it back with the right hand, and replace it in the position of ordered arms.

When the instructor shall have passed him, each soldier will retake the position prescribed at the command *inspection of arms*, and return the rammer; after which he will face to the front.

140. If, instead of inspection of arms, it be the wish of the instructor only to cause bayonets to be fixed, he will command:

Fix — BAYONET.

Take the position indicated, No. 139, (first motion), fix bayonets as has been explained, and immediately face to the front.

Bayonets fixed, if it be the wish of the instructor, after firing, to ascertain whether the pieces have been discharged, he will command:

Spring — RAMMERS.

Put the rammer in the barrel, as has been explained above, and immediately face to the front.

The instructor, for the purpose stated, can take the rammer by the small end, and spring it in the barrel, or cause each man to make the rammer ring in the barrel.

Each man, after the instructor passes him, will return rammer, and face to the front.

Arms — PORT.

One time and one motion.

141. Throw the piece diagonally across the body, the lock to the front, seize it smartly at the same instant with both hands, the right

Fig. 41.

Fig. 42.

at the handle, the left at the tail-band, the two thumbs pointing towards the muzzle, the barrel sloping upwards and crossing opposite

to the point of the left shoulder, the butt proportionally lowered. The palm of the right hand will be above, and that of the left under the piece, the nails of both hands next to the body, to which the elbows will be closed. (Fig. 41.)

Shoulder — ARMS.

One time and two motions.

First motion. Bring the piece smartly to the left shoulder, placing the left hand under the butt.

Second motion. Drop the right hand smartly by the side.

MANUAL OF ARMS FOR THE RIFLE.

Principles of Shouldered Arms.

142. The soldier standing in the position of the soldier, the instructor causes him to bend the right arm slightly, and places the piece in it, in the following manner: (Fig. 42.) The piece in the right hand—the barrel nearly vertical and resting in the hollow of the shoulder — the guard to the front, the arm hanging nearly at its full length near the body; the thumb and fore-finger embracing the guard, the remaining fingers closed together, and grasping the swell of the stock just under the cock, which rests on the little finger.

Support — ARMS.

One time and three motions.

143. *First motion.* Bring the piece, with the right hand, perpendicularly to the front and between the eyes, the barrel to the rear; seize the piece with the left hand at the lower band, raise this hand as high as the chin, and seize the piece at the same time with the right hand four inches below the cock.

Second motion. Turn the piece with the right hand, the barrel to the front; carry the piece to the left shoulder, and pass the fore-arm extended on the breast between the right hand and the cock; support the cock against the left fore-arm, the left hand resting on the right breast.

Third motion. Drop the right hand by the side.

Shoulder — ARMS.

One time and three motions.

144. *First motion.* Grasp the piece with the right hand under and against the left fore-arm; seize it with the left hand at the lower band, the thumb extended; detach the piece slightly from the shoulder, the left fore-arm along the stock.

Second motion. Carry the piece vertically to the right shoulder with both hands, the rammer to the front, change the position of the right hand so as to embrace the guard with the thumb and fore-finger, slip the left hand to the height of the shoulder, the fingers extended and joined, the right arm nearly straight.

Third motion. Drop the left hand quickly by the side.

Present — ARMS.

One time and two motions.

145. *First motion.* With the right hand bring the piece erect before the centre of the body, the rammer to the front; at the same time seize the piece with the left hand half-way between the guide sight and lower band, the thumb extended along the barrel and against the stock, the fore-arm horizontal and resting against the body, the hand as high as the elbow.

Second motion. Grasp the small of the stock with the right hand below and against the guard.

Shoulder — ARMS.

One time and two motions.

146. *First motion.* Bring the piece to the right shoulder, at the same time change the position of the right hand so as to embrace the guard with the thumb and fore-finger, slip up the left hand to the height of the shoulder, the fingers extended and joined, the right arm nearly straight.

Second motion. Drop the left hand quickly by the side.

Order — ARMS.

One time and two motions.

147. *First motion.* Seize the piece briskly with the left hand near the upper band, and detach it slightly from the shoulder with

the right hand: loosen the grasp of the right hand, lower the piece with the left, re-seize the piece with the right hand above the lower band, the little finger in rear of the barrel, the butt about four inches from the ground, the right hand supported against the hip, drop the left hand by the side.

Second motion. Let the piece slip through the right hand to the ground by opening slightly the fingers, and take the position about to be described.

Position of order arms.

148. The hand low, the barrel between the thumb and fore-finger extended along the stock; the other fingers extended and joined; the muzzle about two inches from the right shoulder; the rammer in front; the toe (or beak) of the butt, against, and in a line with, the toe of the right foot, the barrel perpendicular.

Shoulder — ARMS.

One time and two motions.

149. *First motion.* Raise the piece vertically with the right hand to the height of the right breast, and opposite the shoulder, the elbow close to the body; seize the piece with the left hand below the right, and drop quickly the right hand to grasp the piece at the swell of the stock, the thumb and fore-finger embracing the guard; press the piece against the shoulder with the left hand, the right arm nearly straight.

Second motion. Drop the left hand quickly by the side.

Load in nine times.

1. LOAD.[1]

One time and one motion.

150. Grasp the piece with the left hand as high as the right elbow, and bring it vertically opposite the middle of the body, shift

[1] Whenever the loadings and firings are to be executed, the instructor will cause the cartridge boxes to be brought to the front.

the right hand to the upper band, place the butt between the feet, the barrel to the front; seize it with the left hand near the muzzle, which should be three inches from the body; carry the right hand to the cartridge box. (Fig. 43.)

Fig. 43.

2. *Handle* — CARTRIDGE.

One time and one motion.

151. Seize the cartridge with the thumb and next two fingers, and place it between the teeth.

3. *Tear* — CARTRIDGE.

One time and one motion.

152. Tear the paper to the powder, hold the cartridge upright between the thumb and first two fingers, near the top; in this position place it in front of and near the muzzle — the back of the hand to the front.

4. *Charge* — CARTRIDGE.

One time and one motion.

153. Empty the powder into the barrel; disengage the ball from the paper with the right hand and the thumb and first two fingers of the left; insert it into the bore, the pointed end uppermost, and press it down with the right thumb; seize the head of the rammer with the thumb and fore-finger of the right hand, the other fingers closed, the elbows near the body.

5. *Draw* — RAMMER.

One time and three motions.

154. *First motion.* Half draw the rammer by extending the right arm; steady it in this position with the left thumb; grasp the rammer near the muzzle with the right hand, the little finger uppermost, the nails to the front, the thumb extended along the rammer.

Second motion. Clear the rammer from the pipes by again extending the arm; the rammer in the prolongation of the pipes.

Third motion. Turn the rammer, the little end of the rammer passing near the left shoulder; place the head of the rammer on the ball, the back of the hand to the front.

6. *Ram* — CARTRIDGE.

One time and one motion.

155. Insert the rammer as far as the right, and steady it in this position with the thumb of the left hand; seize the rammer at the small end with the thumb and fore-finger of the right hand, the back of the hand to the front; press the ball home, the elbows near the body.

7. *Return* — RAMMER.

One time and three motions.

156. *First motion.* Draw the rammer half-way out, and steady it in this position with the left thumb; grasp it near the muzzle with the right hand, the little finger uppermost, the nails to the front, the thumb along the rammer; clear the rammer from the bore by extending the arm, the nails to the front, the rammer in the prolongation of the bore.

Second motion. Turn the rammer, the head of the rammer passing near the left shoulder, and insert it in the pipes until the right hand reaches the muzzle, the nails to the front.

Third motion. Force the rammer home by placing the little finger of the right hand on the head of the rammer; pass the left hand down the barrel to the extent of the arm, without depressing the shoulder.

8. PRIME.

One time and two motions.

157. *First motion.* With the left hand raise the piece till the hand is as high as the eye, grasp the small of the stock with the right hand; half face to the right; place, at the same time, the right foot behind and at right angles with the left; the hollow of the right foot against the left heel. Slip the left hand down to the lower band, the thumb

along the stock, the left elbow against the body; bring the piece to the right side, the butt below the right fore-arm—the small of the stock against the body and two inches below the right breast, the barrel upwards, the muzzle on a level with the eye.

Second motion. Half cock with the thumb of the right hand, the fingers supported against the guard and the small of the stock —remove the old cap with one of the fingers of the right hand, and with the thumb and fore-finger of the same hand take a cap from the pouch, place it on the nipple, and press it down with the thumb; seize the small of the stock with the right hand.

9. *Shoulder* — Arms.

One time and two motions.

158. *First motion.* Bring the piece to the right shoulder, and support it there with the left hand, face to the front; bring the right heel to the side of and on a line with the left; grasp the piece with the right hand as indicated in the position of *shoulder arms.*

Second motion. Drop the left hand quickly by the side.

Ready.

One time and three motions.

159. *First motion.* Raise the piece slightly with the right hand, making a half face to the right on the left heel; carry the right foot to the rear, and place it at right angles to the left, the hollow of it opposite to, and against the left heel; grasp the piece with the left hand at the lower band and detach it slightly from the shoulder.

Second motion. Bring down the piece with both hands, the barrel upwards, the left thumb extended along the stock, the butt below the right fore-arm, the small of the stock against the body and two inches below the right breast, the muzzle as high as the eye, the left elbow against the side; place at the same time the right thumb on the head of the cock, the other fingers under and against the guard.

Third motion. Cock, and seize the piece at the small of the stock without deranging the position of the butt.

AIM.

160. As in the manual for the musket.

FIRE.

161. As in the manual for the musket.

LOAD.

One time and one motion.

162. Bring down the piece with both hands, at the same time face to the front and take the position of *load*. Each rear rank man will bright his right foot by the side of the left.

The men being in this position, the instructor will cause the loading to be continued by the commands and means prescribed No. 151 and following.

If, after firing, the instructor should not wish the recruits to reload, he will command:

Shoulder — ARMS.

One time and one motion.

163. Throw up the piece briskly with the left hand and resume the position of *shoulder arms*, at the same time face to the front, turning on the left heel, and bring the right heel on a line with the left.

Recover — ARMS.

164. The same as in the manual for the musket.

165. The soldiers being in the position of the third motion of *ready*, if the instructor should wish to bring them to a shoulder, he will command:

Shoulder — ARMS.

One time and one motion.

At the command *shoulder*, place the thumb upon the cock, the fore-finger on the trigger, half-cock, and seize the small of the stock with the right hand. At the command *arms*, bring up the piece briskly to the right shoulder, and retake the position of shoulder arms.

The recruits being at shoulder arms, when the instructor shall wish to fix bayonets, he will command:

Fix — BAYONET.

One time and three motions.

166. *First motion.* Grasp the piece with the left hand at the height of the shoulder, and detach it slightly from the shoulder with the right hand.

Second motion. Quit the piece with the right hand, lower it with the left hand, opposite the middle of the body, and place the butt between the feet without shock; the rammer to the rear, the barrel vertical, the muzzle three inches from the body; seize it with the right hand at the upper band, and carry the left hand reversed to the handle of the sabre-bayonet.

Third motion. Draw the sabre-bayonet from the scabbard and fix it on the extremity of the barrel; seize the piece with the left hand, the arm extended, the right hand at the upper band.

Shoulder — ARMS.

One time and two motions.

167. *First motion.* Raise the piece with the left hand and place it against the right shoulder, the rammer to the front; seize the piece at the same time with the right hand at the swell of the stock, the thumb and fore-finger embracing the guard, the right arm nearly extended.

Second motion. Drop briskly the left hand by the side.

Charge — BAYONET.

One time and two motions.

168. *First motion.* Raise the piece slightly with the right hand and make a half face to the right on the left heel; place the hollow of the right foot opposite to, and three inches from the left heel, the feet square; seize the piece at the same time with the left hand a little above the lower band.

Second motion. Bring down the piece with both hands, the

barrel uppermost, the left elbow against the body; seize the small of the stock, at the same time, with the right hand, which will be supported against the hip; the point of the sabre-bayonet as high as the eye.

Shoulder — ARMS.

One time and two motions.

169. *First motion.* Throw up the piece briskly with the left hand in facing to the front, place it against the right shoulder, the rammer to the front; turn the right hand so as embrace the guard, slide the left hand to the height of the shoulder, the right hand nearly extended.

Second motion. Drop the left hand smartly by the side.

Trail — ARMS.

One time and two motions.

170. *First motion.* The same as the first motion of *order arms.*

Second motion. Incline the muzzle slightly to the front, the butt to the rear and about four inches from the ground. The right hand supported at the hip, will so hold the piece that the rear rank men may not touch with their bayonets the men in the front rank.

Shoulder — ARMS.

171. At the command *shoulder*, raise the piece perpendicularly in the right hand, the little finger in rear of the barrel; at the command *arms*, execute what has been prescribed for the *shoulder* from the position of *order arms.*

Unfix — BAYONET.

One time and three motions.

172. *First and second motions.* The same as the first and second motions of *fix bayonet*, except that, at the end of the second command, the thumb of the right hand will be placed on the spring of the sabre-bayonet, and the left hand will embrace the handle of the sabre-bayonet and the barrel, the thumb extended along the blade.

Third motion. Press the thumb of the right hand on the spring,

wrest off the sabre-bayonet, turn it to the right, the edge to the front, lower the guard until it touches the right hand, which will seize the back and the edge of the blade between the thumb and first two fingers, the other fingers holding the piece; change the position of the hand without quitting the handle, return the sabre-bayonet to the scabbard, and seize the piece with the left hand, the arm extended.

Shoulder — ARMS.

One time and two motions.

173. *First motion.* The same as the first motion from *fix bayonet*, No. 167.

Second motion. The same as the second motion from *fix bayonet.*

Secure — ARMS.

One time and three motions.

174. *First motion.* The same as the first motion of *support arms*, except with the right hand seize the piece at the small of the stock.

Second motion. Turn the piece with both hands, the barrel to the front; bring it opposite the left shoulder, the butt against the hip, the left hand at the lower band, the thumb as high as the chin and extended on the rammer; the piece erect and detached from the shoulder, the left fore-arm against the piece.

Third motion. Reverse the piece, pass it under the left arm, the left hand remaining at the lower band, the thumb on the rammer to prevent it from sliding out, the little finger resting against the hip, the right hand falling at the same time by the side.

Shoulder — ARMS.

One time and three motions.

175. *First motion.* Raise the piece with the left hand, and seize it with the right hand at the small of the stock. The piece erect and detached from the shoulder, the butt against the hip, the left fore-arm along the piece.

Second motion. The same as the second motion of *shoulder arms from a support.*

Third motion. The same as the third motion of *shoulder arms from a support.*

Right shoulder shift — ARMS.

One time and two motions.

176. *First motion.* Detach the piece perpendicularly from the shoulder with the right hand, and seize it with the left between the lower band and guide-sight, raise the piece, the left hand at the height of the shoulder and four inches from it; place, at the same time, the right hand on the butt, the beak between the first two fingers, the other two fingers under the butt plate.

Second motion. Quit the piece with the left hand, raise and place the piece on the right shoulder with the right hand, the lock plate upwards; let fall, at the same time, the left hand by the side.

Shoulder — ARMS.

One time and two motions.

177. *First motion.* Raise the piece perpendicularly by extending the right arm to its full length, the rammer to the front, at the same time seize the piece with the left hand between the lower band and guide-sight.

Second motion. Quit the butt with the right hand, which will immediately embrace the guard, lower the piece to the position of shoulder arms, slide up the left hand to the height of the shoulder, the fingers extended and closed. Drop the left hand by the side.

The men being at support arms, the instructor will sometimes cause pieces to be brought to the right shoulder. To this effect, he will command:

Right shoulder shift — ARMS.

One time and two motions.

178. *First motion.* Seize the piece with the right hand, below and near the left fore-arm, place the left hand under the butt, the heel of the butt between the first two fingers.

Second motion. Turn the piece with the left hand, the lock plate upwards, carry it to the right shoulder, the left hand still holding

the butt, the muzzle elevated; hold the piece in this position and place the right hand upon the butt, and let fall the left hand by the side.

Support — ARMS.

One time and two motions.

179. *First motion.* The same as the first motion of *shoulder arms.*

Second motion. Turn the piece with both hands, the barrel to the front, carry it opposite the left shoulder, slip the right hand to the small of the stock, place the left fore-arm extended on the breast, and let fall the right hand by the side.

Arms — AT WILL.

One time and one motion.

180. At this command, carry the piece at pleasure on either shoulder, with one or both hands, the muzzle elevated.

Shoulder — ARMS.

One time and one motion.

181. At this command, retake quickly the position of shoulder arms.

Inspection of arms.

182. The soldiers being at *ordered arms,* and having the sabre-bayonet in the scabbard, if the instructor wishes to cause an inspection of arms, he will command:

Inspection — ARMS.

One time and two motions.

183. *First motion.* Seize the piece with the left hand below and near the upper band, carry it with both hands opposite the middle of the body, the butt between the feet, the rammer to the rear, the barrel vertical, the muzzle about three inches from the body; carry the left hand reversed to the sabre-bayonet, draw it from the scabbard and fix it on the barrel; grasp the piece with the left hand below and near the upper band, seize the rammer with the thumb and fore-finger of the right hand bent, the other fingers closed.

Second motion. Draw the rammer as has been explained in *loading*, and let it glide to the bottom of the bore, replace the piece with the left hand opposite the right shoulder, and retake the position of *ordered arms.*

The instructor will then inspect in succession the piece of each man, in passing along the front of the rank. Each, as the instructor reaches him, will raise smartly his piece with his right hand, seize it with the left between the lower band and guide sight, the lock to the front, the left hand at the height of the chin, the piece opposite to the left eye; the instructor will take it with the right hand at the handle, and, after inspecting it, will return it to the man, who will receive it back with the right hand, and replace it in the position of *ordered arms.*

When the instructor shall have passed him, each soldier will retake the position prescribed at the command *inspection arms*, return the rammer, and resume the position of *ordered arms.*

If, instead of *inspection of arms*, the instructor should merely wish to cause bayonets to be fixed, he will command:

Fix — BAYONET.

184. Take the position indicated No. 183, fix bayonets as has been explained, and immediately resume the position of *ordered arms.*

If it be the wish of the instructor, after firing, to ascertain whether the pieces have been discharged, he will command:

Spring — RAMMERS.

This is done as in the manual for the musket.

To load in four times.

185. The first time will be executed at the end of the command; the three others at the commands, *two*, *three*, and *four.*

The instructor will command:

1. *Load in four times.* 2. LOAD.

186. Execute the times to include charge cartridge.

TWO.

187. Execute the times to include ram cartridge.

THREE.

188. Execute the times to include prime.

FOUR.

189. Execute the time of *shoulder arms.*

To load at will.

190. The instructor will next teach loading at will, which will be executed as loading in four times, but continued, and without resting on either of the times. He will command:

1. *Load at will.* 2. LOAD.

The instructor will habituate the soldiers, by degrees, to load with the greatest possible promptitude, each without regulating himself by his neighbor, and above all without waiting for him.

Firings.

191. The firings are direct or oblique, and will be executed as follows:

The direct fire.

The instructor will give the following commands:

1. *Fire by squad.* 2. *Squad.* 3. READY. 4. AIM. 5. FIRE. 6. LOAD.

These several commands will be executed as has been prescribed in the *Manual of Arms.* At the third command, the men will come to the position of *ready* as heretofore explained. At the fourth they will aim according to the rank in which each may find himself placed, the rear rank men inclining forward a little the upper part of the body, in order that their pieces may reach as much beyond the front rank as possible.

At the sixth command, they will load their pieces, and return immediately to the position of *ready.*

The instructor will recommence the firing by the commands:

1. *Squad.* 2. AIM. 3. FIRE. 4. LOAD.

When the instructor wishes the firing to cease, he will command:

Cease firing.

At this command, the men will cease firing, but will load their pieces if unloaded, and afterwards bring them to a shoulder.

Oblique Firings.

192. The oblique firings will be executed to the right and left, and by the same commands as the direct fire, with this single difference—the command *aim* will always be preceded by the caution, *right* or *left oblique.*

Position of the two ranks in the Oblique Fire to the right.

At the command *ready*, the two ranks will execute what has been prescribed for the direct fire.

At the cautionary command, *right oblique*, the two ranks will throw back the right shoulder and look steadily at the object to be hit.

At the command *aim*, each front rank man will aim to the right without deranging the feet; each rear rank man will advance the left foot about eight inches towards the right heel of the man next on the right of his file leader and aim to the right, inclining the upper part of the body forward and bending a little the left knee.

Position of the two ranks in the Oblique Fire to the left.

At the cautionary command, *left oblique*, the two ranks will throw back the left shoulder and look steadily at the object to be hit.

At the command *aim*, the front rank will take aim to the left without deranging the feet; each man in the rear rank will advance the right foot about eight inches towards the right heel of the man next on the right of his file leader, and aim to the left, inclining the upper part of the body forward and bending a little the right knee.

In both cases, at the command *load*, the men of each rank will

come to the position of load as prescribed in the direct fire; the rear rank men bringing back the foot which is to the right and front by the side of the other. Each man will continue to load as if isolated.

To fire by File.

193. The fire by file will be executed by the two ranks, the files of which will fire successively, and without regulating on each other, except for the first fire.

The instructor will command:

1. *Fire by file.* 2. *Squad.* 3. READY. 4. COMMENCE FIRING.

At the third command, the two ranks will take the position prescribed in the direct fire.

At the fourth command, the file on the right will aim and fire; the rear rank man in aiming will take the position indicated No. 118.

The men of this file will load their pieces briskly and fire a second time; reload and fire again, and so on in continuation.

The second file will aim, at the instant the first brings down pieces to reload, and will conform in all respects to that which has just been prescribed for the first file.

After the first fire, the front and rear rank men will not be required to fire at the same time.

Each man, after loading, will return to the position of ready and continue the fire.

When the instructor wishes the fire to cease, he will command:

Cease — FIRING.

At this command, the men will cease firing. If they have fired they will load their pieces and bring them to a shoulder; if at the position of *ready*, they will half-cock and shoulder arms. If in the position of *aim*, they will bring down their pieces, half-cock, and shoulder arms.

To fire by Rank.

194. The fire by rank will be executed by each entire rank, alternately.

The instructor will command:

1. *Fire by rank.* 2. *Squad.* 3. READY. 4. *Rear rank.* 5. AIM. 6. FIRE. 7. LOAD.

At the third command, the two ranks will take the position of *ready*, as prescribed in the direct fire.

At the seventh command, the rear rank will execute that which has been prescribed in the direct fire, and afterwards take the position of *ready.*

As soon as the instructor sees several men of the rear rank in the position of ready, he will command:

1. *Front rank.* 2. AIM. 3. FIRE. 4. LOAD.

At these commands, the men in the front rank will execute what has been prescribed for the rear rank, but they will not step off with the right foot.

The instructor will recommence the firing by the rear rank, and will thus continue to alternate from rank to rank, until he shall wish the firing to cease, when he will command, *cease firing*, which will be executed as heretofore prescribed.

To fire and load Kneeling.

195. In this exercise the squad will be supposed loaded and drawn up in one rank. The instruction will be given to each man individually, without times or motions, and in the following manner.

The instructor will command:

FIRE AND LOAD KNEELING.

At this command, the man on the right of the squad will move forward three paces and halt; then carry the right foot to the rear and to the right of the left heel, and in a position convenient for placing the right knee upon the ground in bending the left leg; place the right knee upon the ground; lower the piece, the left fore-arm supported upon the thigh on the same side, the right hand on the small of the stock, the butt resting on the right thigh, the left hand supporting the piece near the lower band.

He will next move the right leg to the left around the knee supported on the ground, until this leg is nearly perpendicular to the

direction of the left foot, and thus seat himself comfortably on the right heel.

Raise the piece with the right hand and support it with the left, holding it near the lower band, the left elbow resting on the left thigh near the knee; seize the hammer with the thumb, the fore-finger under the guard, cock and seize the piece at the small of the stock; bring the piece to the shoulder, *aim* and *fire*.

Bring the piece down as soon as it is fired, and support it with the left hand, the butt resting against the right thigh; carry the piece to the rear rising on the knee, the barrel downwards, the butt resting on the ground; in this position support the piece with the left hand at the upper band, draw cartridge with the right and load the piece, ramming the ball, if necessary, with both hands.

When loaded bring the piece to the front with the left hand, which holds it at the upper band; seize it at the same time with the right hand at the small of the stock; turn the piece, the barrel uppermost and nearly horizontal, the left elbow resting on the left thigh; half-cock, remove the old cap and prime, rise, and return to the ranks.

The second man will then be taught what has just been prescribed for the first, and so on through the remainder of the squad.

To fire and load Lying.

196. In this exercise the squad will be in one rank and loaded; the instruction will be given individually and without times or motions.

The instructor will command:

FIRE AND LOAD LYING.

At this command, the man on the right of the squad will move forward three paces and halt; he will then bring his piece to an order, drop on both knees, and place himself on the ground flat on his belly. In this position he will support the piece nearly horizontal with the left hand, holding it near the lower band, the butt end of the piece and the left elbow resting on the ground, the barrel uppermost; cock the piece with the right hand, and carry this hand

to the small of the stock; raise the piece with both hands, press the butt against the shoulder, and resting on both elbows, *aim* and *fire*.

As soon as he has fired, bring the piece down and turn upon his left side, still resting on his left elbow; bring back the piece until the cock is opposite his breast, the butt end resting on the ground; take out a cartridge with the right hand; seize the small of the stock with this hand, holding the cartridge with the thumb and two first fingers; he will then throw himself on his back, still holding the piece with both hands; carry the piece to the rear, place the butt between the heels, the barrel up, the muzzle elevated. In this position, charge cartridge, draw rammer, ram cartridge, and return rammer.

When finished loading, the man will turn again upon his left side, remove the old cap and prime, then raise the piece vertically, rise, turn about, and resume his position in the ranks.

The second man will be taught what has just been prescribed for the first, and so on throughout the squad.

Bayonet Exercise.

197. The bayonet exercise in this book will be confined to two movements, the *guard against infantry*, and the *guard against cavalry*. The men will be placed in one rank, with two paces interval, and being at shoulder arms, the instructor will command:

1. *Guard against Infantry.* 2. GUARD.

One time and two motions.

First motion. Make a half face to the right, turning on both heels, the feet square to each other; at the same time raise the piece slightly, and seize it with the left hand above and near the lower band.

Second motion. Carry the right foot twenty inches perpendicularly to the rear, the right heel on the prolongation of the left, the knees slightly bent, the weight of the body resting equally on both legs; lower the piece with both hands, the barrel uppermost, the

Fig. 44.

left elbow against the body; seize the piece at the same time with the right hand at the small of the stock, the arms falling naturally, the point of the bayonet slightly elevated. (Fig. 44.)

Shoulder — ARMS.

One time and one motion.

Throw up the piece with the left hand, and place it against the right shoulder, at the same time bring the right heel by the side of the left and face to the front.

1. *Guard against Cavalry.* 2. GUARD.

One time and two motions.

Both motions the same as for *guard against infantry*, except that the right hand will be supported against the hip, and the bayonet held at the height of the eye, as in *charge bayonet.*

Shoulder — ARMS.

One time and one motion.

Spring up the piece with the left hand and place it against the right shoulder, at the same time bring the right heel by the side of the left, and face to the front.

MANUAL OF THE SWORD OR SABRE, FOR OFFICERS.

POSITION OF THE SWORD OR SABRE, UNDER ARMS.

198. *The carry.* The gripe in the right hand, which will be supported against the right hip, the back of the blade against the shoulder.

TO SALUTE WITH THE SWORD OR SABRE.

Three times (or *pauses*).

One. At the distance of six paces from the person to be saluted, raise the sword or sabre perpendicularly, the point up, the flat of the blade opposite to the right eye, the guard at the height of the shoulder, the elbow supported on the body.

Two. Drop the point of the sword or sabre by extending the arm, so that the right hand may be brought to the side of the right thigh, and remain in that position until the person to whom the salute is rendered shall be passed, or shall have passed, six paces.

Three. Raise the sword or sabre smartly, and resume the position first prescribed.

COLOR-SALUTE.

199. In the ranks, the color-bearer, whether at a halt or in march, will always carry the heel of the color-lance supported at the right hip, the right hand generally placed on the lance at the height of the shoulder, to hold it steady. When the color has to render honors, the color-bearer will salute as follows:

At the distance of six paces slip the right hand along the lance to the height of the eye; lower the lance by straightening the arm to its fullest extent, the heel of the lance remaining at the hip, and bring back the lance to the habitual position when the person saluted shall be passed, or shall have passed, six paces.

PART THIRD.

200. When the men are well established in *the principles and mechanism of the step, the position of the body, and the manual of arms,* the instructor will unite from eight to twelve in a squad, in

order to teach them the principles of alignment, the touch of the elbow in marching to the front, the principles of the march by the flank, wheeling from a halt, wheeling in marching, and the change of direction to the side of the guide. He will place the squad in one rank elbow to elbow, and number the men from right to left.

Alignments.

201. The instructor will at first teach the soldiers to align themselves man by man, in order to make them understand the principles of alignment better; for this purpose, he will command the two men on the right flank to march two paces to the front, and having aligned (or *dressed*) them, he will cause the remainder of the squad to move up, as may be successively called, each by his number, as *three*, *four*, etc., and align (or *dress*) themselves successively on the line of the first two men.

Each man, as designated by his number, will turn his head and eyes to the right, as directed for *eyes right* in the first part, and march *two paces forward in quick time*, shortening the last step, so as to find himself about six inches behind the new line, which he ought never to cross; he will then move up steadily by steps of two or three inches, the legs straight, to the side of the next man to him on the line, so that, without throwing the head or the shoulders out of place, he may find himself in the exact line with the files on his right, and touching elbows with the nearest one without opening out his arms.

The instructor seeing the line properly dressed, commands:

FRONT.

At which the men will turn their eyes to the front, and remain firm.

Alignments to the left will be conducted on the same principles.

202. When the men shall have learned to dress correctly man by man, without deranging the head or shoulders, and without jostling, the instructor will cause the entire squad to dress at once by the command:

Squad right (or *left*) — DRESS.

At this the squad, except the two men placed in advance as a basis of alignment, will move up in *quick time*, and place themselves on the new line according to the principles just laid down.

The instructor will superintend the dressing, and when he sees the greater number of the squad in their proper places, will command:

FRONT.

The instructor may afterwards order *this* or *that* file *forward* or *back*, designating each man by his number (or name). The file or files designated, will slightly turn the head towards the *right* (or *left*), to judge how much they ought to move up or back, place themselves on the line by moving an inch or two at a time, and then turn eyes to the front, without waiting for any command from the instructor.

203. Alignments to the rear will be executed on the same principles, the men stepping back a little beyond the line, and then dressing up according to the principles laid down in No. 201; the commands of the instructor are:

Right (or *left*) *backward* — DRESS.

To march to the front.

204. The squad being correctly aligned, and the instructor wishing to march it to the front, he will place a well-instructed man on the right or left, according to the side on which he wishes the guide to be, and command:

1. *Squad forward.* 2. *Guide right* (or *left*). 3. MARCH.

At the command *march*, the squad will step off smartly with the left foot, and will take up *quick time*, unless otherwise specially ordered. *This rule is general.* The guide will take care to march straight to the front, keeping his shoulders always square with that line. The men will touch elbows lightly on the side towards the guide, maintaining the shoulders square to the front, no matter on which side the guide may be; they should be careful not to open

out the left elbow, or the right arm; that they yield to pressure coming from the side of the guide, and resist that coming from the side opposite; that they recover by insensible degrees the touch of the elbow, if lost; and if any files are before or behind the line, that they correct themselves by shortening or lengthening the step by almost insensible degrees. It is all important that the closest attention should be paid to each one of the above directions, otherwise the men cannot attain proficiency, and when they are advanced to the company drill, it will be impossible to secure promptness or accuracy in the manœuvres.

205. The men being well established in the principles of the direct march, the instructor will exercise them in marching obliquely. The squad being in march, the instructor commands:

1. *Right* (or *left*) *oblique.* 2. MARCH.

At the command *march*, each man will make a half face to the right (or left), and will then march straight forward in the new direction. As the men no longer touch elbows, they will glance along the nearest files, towards the side to which they are obliquing, and will regulate their steps so that the right (or left) shoulder shall always be behind the left (or right) shoulder of their next neighbor on the right (or left), and that his head shall conceal the heads of the other men on the right (or left). The men should be careful to preserve the same length of pace, and the same degree of obliquity. The guides must always be on the flank towards which the oblique takes place.

The instructor wishing to resume the direct march, will command:

1. *Forward.* 2. MARCH.

At the command *march*, each man will make a half face to the left (or right), and all will march straight to the front, conforming to the principles laid down for marching to the front.

To march to the front in double quick time.

206. Instruction in the principles of this step is recommended for all infantry troops; it *may* be omitted for *infantry of the line*,

but in no other case; nothing but the imperative necessity for giving all of the time at the disposal of the instructor to instruction in the principles of the quick step and to the manœuvres, should prevent even infantry of the line from being thoroughly instructed in the principles of this step.

The squad being at a march in quick time, the instructor commands:

Double quick. 2. MARCH.

At the command *march,* which will be given when either foot is coming to the ground, the squad will step off in double quick time. The men should be careful to follow the rules already laid down for the march in the double quick step, and to preserve the alignment.

When the instructor wishes the squad to resume the quick step, he will command:

1. *Quick time.* 2. MARCH.

At the command *march,* which should be given when either foot is coming to the ground, the squad will retake the step in quick time.

If the squad is at a halt, and the instructor wishes to march at the double quick step, he commands:

1. *Squad forward.* 2. *Guide right* (or *left*). 3. *Double quick.* 4. MARCH.

The squad being on the march in double quick time, the instructor will occasionally cause it to mark time; the men will then mark double quick time without altering the cadence. He will also cause them to pass from the direct to the oblique march, and the reverse, conforming to what has been prescribed for the oblique march.

In marching at *double quick time,* the men will always carry their pieces on the *right shoulder,* or at a *trail. This rule is general.*

If the instructor wishes the pieces carried at a trail, he will give the command *trail arms,* before the command *double quick.* If, on the contrary, this command is not given, the men will shift their pieces to the right shoulder at the command *double quick.* In

either case, at the command halt, the men will bring their pieces to the position of *shouldered arms. This rule is general.*

To face about in marching.

207. If the squad be marching in quick, or double quick time, and the instructor should wish to march in retreat, he will command:

1. *Squad right about.* 2. MARCH.

At the command *march,* which should be given at the instant the *right foot touches the ground,* the soldier will complete the next pace with the *left* foot, then turning to the right about on both heels, will step off with the left foot.

To march by the flank.

208. The squad being at a halt, and correctly aligned, the instructor will command:

1. *Squad, right* — FACE. 2. *Forward.* 3. MARCH.

At the command *face,* the squad will face to the right; the even numbered men, after falling to the right, will step quickly to the right side of the odd numbered men, the latter standing fast, so that when the movement is executed, the men will be formed into files of two men abreast, or *doubled.*

At the command *march,* the squad will step off smartly with the left foot; the files keeping their dress, and preserving their intervals.

The march by the left flank will be executed by the same commands, substituting the word *left* for *right,* and by inverse means; in this case, the even numbered men, after facing to the left, will stand fast, and the odd numbered will place themselves on their left.

When the instructor shall wish to halt the squad, marching by the flank, and to cause it to face to the front, he will command:

1. *Squad.* 2. HALT. 3. FRONT.

At the second command the rank will halt, and afterwards no man will stir, although he may have lost his distance. This prohibition is necessary, to habituate the men to a constant attention to their distances.

At the command *front*, each man will front by facing to the left, if marching by the right flank, and by a face to the right, if marching by the left flank. The rear rank men will move quickly into their places, so as to form the squad into one rank again.

209. The squad being on the march by the flank, the instructor will cause it to change direction by commanding:

1. *By file left* (or *right*). 2. MARCH.

At the command *march*, the first file will change direction to the left (or right) in describing a small arc of a circle, and will then march strait forward; the two men of this file, in wheeling, will keep up the touch of the elbows, and the man on the side to which the wheel is made, will shorten the first three or four steps. Each file will come successively to the wheel on the same spot where that which preceded it wheeled.

210. The instructor will also cause the squad to face by the right or left flank in marching, and for this purpose will command:

1. *Squad by the right* (or *left*) *flank*. 2. MARCH.

At the command *march*, which will be given a little before either foot comes to the ground, the men will turn the body, plant the foot that is raised in the new direction, and step off with the other foot without altering the cadence of the step. When the squad faces to the front or rear in marching, the men who find themselves in *rear* step to the right or left so as to form a single rank, each man in his place as in the beginning; this is called the *undoubling* of files.

If when the squad is marching to the front or rear, the instructor causes it to march by a flank, the files will *double;* when the squad is on the march to the front, and is faced by the right flank, the *even* numbers will step up to the right of the *odd* ones, as in the first instance in facing from a halt; when it is marched by the left flank, the *odd* numbers should double on the left of the even; if the squad is marching to the rear when it is faced by the right flank, the *odd* will double on the *even* as in the last case, but if faced by the left flank the even will double to the right of the *odd* as in the first case.

The instructor will sometimes march by a flank without doubling files; for this purpose he commands:

In one rank, right — FACE.

In marching at the *double quick*, however, the files will always be doubled.

General principles of wheelings.

211. Wheelings are of two kinds; from a halt, or on *fixed* pivots, and on the march, or on a *movable* pivot.

In wheelings from a halt, the pivot-man only turns in his place, without advancing or receding. In the wheels in marching, the pivot-man takes steps of nine or eleven inches, according as the squad is marching in quick or double quick time, so as to clear the wheeling point, which is necessary in order that, in a column composed of sections, platoons, or companies, the distances between the different parts of it shall not be lost, as will be more fully explained in the school of the company.

The man on the wheeling flank will take a full pace of twenty-eight, or thirty-three inches, according to whether the time is quick or double quick.

Wheeling from a halt, or on a fixed pivot.

212. The squad being at a halt, the instructor will place a well-instructed man on the wheeling flank to conduct it, and command:

1. *By squad, right wheel.* 2. MARCH.

At the command march, the squad will step off with the left foot, turning the head at the same time a little to the left, the eyes on the line of the eyes of the men to their left; the pivot-man will merely mark time, gradually turning his body, in order to conform himself to the movements of the marching flank; the man who conducts this flank will take steps of twenty-eight inches, and from the first step advance the left shoulder a little, cast his eyes from time to time along the rank, and feel constantly, but lightly, the elbow of the next man on his right, but never push him. The other man will feel lightly the elbow of the next man to his right, resist pres-

sure coming from the left, and yield to any coming from the right; each man will conform himself to the march of the men on the left, shortening his step more and more as he is nearer the right, or pivot.

The instructor will make the squad wheel round the circle once or twice before halting, in order to cause the principles to be better understood, and he will be watchful that the centre does not break or get too far in advance.

He will cause the wheel to the left to be executed on the same principles.

When the instructor wishes to arrest the wheel, he commands:

1. *Squad.* 2. HALT.

At the second command the squad will halt, and no man stir. The instructor going to the left (or right, if the wheel has been to the left) flank, will place the two outer men of that flank in the direction he may wish to give to the squad, without however displacing the pivot, who will conform the line of his shoulders to this direction. The instructor will take care to have between these two men and the pivot, only the space necessary to contain the other men. He will then command:

Left (or *right*) — DRESS.

At this the squad will place itself on the alignment of the men fixed as the bases, in conformity with the principles laid down for the alignments. As soon as the men are aligned, the instructor commands:

FRONT.

Wheeling in marching, or on a movable pivot.

213. When the men have been brought to execute the wheel from a halt properly, they will be taught the wheel in marching.

For this end, the squad being on the march, when the instructor shall wish to cause it to change direction to the flank opposite the guide, he will command:

1. *Right* (or *left*) *wheel.* 2. MARCH.

The first command will be given when the squad is *four* paces from the wheeling point.

At the command march the wheel will be executed in the same manner as from a halt, except that the touch of the elbow will remain towards the *left* or marching flank, instead of the side of the actual pivot; that the pivot man, instead of merely turning in his place, will conform himself to the movement of the marching flank, feel lightly the elbow of the next man, take steps of full nine inches, and thus gain ground forward so as to clear the point of the wheel. The middle of the rank will bend slightly to the rear. As soon as the movement shall commence, the man who conducts the marching flank will cast his eyes on the ground over which he will have to pass.

The wheel being ended, the instructor will command:

1. *Forward.* 2. MARCH.

The command *forward* will be given *four* paces before the wheel is complete.

At the command *march*, which will begin at the instant the wheel is complete, the man who conducts the wheel will march straight forward; the pivot man and all the rest of the squad will retake the step of twenty-eight inches, and bring the head direct to the front.

Turning, or change of direction to the side of the guide.

214. The change of direction to the side of the guide, in marching, will be executed as follows: the instructor will command:

1. *Left* (or *right*) *turn.* 2. MARCH.

The first command should be given when the squad is *four* paces from the turning point.

At the command *march*, to be pronounced at the instant the rank ought to turn, the guide will face to the left (or right) in marching, and move forward in the new direction without changing the pace. The whole squad will promptly conform to the new direction; to effect which, each man will advance the shoulder opposite the guide, take the double quick step, turn the head and eyes to the side of the guide, place himself on the line with the guide, from whom he will take the step, touch elbows to the side of the guide, and resume

the direct position of the head. The men will arrive in their places in regular succession.

215. When the men comprehend, and can execute the various wheels, etc., in quick time, the instructor will cause them to be repeated in double quick time, by the same commands, and according to same principles as in quick time, except that the command *double quick* will precede that of *march.* In wheeling while marching, the pivot man will take steps of eleven inches, and in the changes of direction to the side of the guide, the men on the side opposite the guide must increase the gait in order to bring themselves into line.

The instructor, in order not to fatigue the men, and not to divide their attention, will cause them to execute the several movements of wheelings, etc., first without arms, and next, after the mechanism be well comprehended, with arms.

ARTICLE IV.

SCHOOL OF THE COMPANY.

MANNER OF FORMING THE COMPANY.

216. The whole company being assembled on its parade ground, or in the rendezvous, the *first*, or orderly sergeant, will command:

Fall in — Company.

At this command the corporals and privates will form in one rank, faced to the right, and in the order of height from right to left, the tallest man on the right (now head of the company), the next tallest man immediately covering the first, and so on to the left or rear of the rank, in which position will be placed the shortest man. The other sergeants will take post in the rank of file-closers, two paces to the right of the company, and assist the first sergeant in forming the company.

When the men have their places, the first sergeant will command:

Front.

The second sergeant, who is the left guide of the company, will now place himself on the left of the company, and the orderly sergeant will promptly command:

1. *In two ranks, form company.* 2. *Left* — Face. 3. March.

At the command *left face*, the whole company will face to the left, except the guide and man on the left, who stand fast.

At the command *march*, the whole of the men who have faced to the left, will step off together; the second man, counting from the left, will place himself in the rear rank, behind the man next to the guide, and face to the front; the two following men will, in like manner, on closing up, form the next file, the third man in the front, and the fourth in the rear rank behind him, and all the other

men will come successively to form files, two deep, to the right of those already formed.[1]

The officers will now take their posts as prescribed in No. 8; if the captain has to discharge the duties of instructor, the first lieutenant will take his place on the right of the front rank, the second lieutenant replacing the first behind the fourth section.

The instructor will then cause the files to be numbered, and for this purpose will command:

In each rank—count TWOS.

At this command the men count in each rank from right to left, pronouncing in a loud and distinct voice, in the same tone, without hurry and without turning the head, *one, two,* according to the place each one occupies. He will also cause the company to be divided into platoons and sections, taking care that the first platoon is always composed of an even number of files.

To open ranks.

217. The company being at ordered arms, the ranks and file-closers well aligned, when the instructor shall wish to cause the ranks to be opened, he will direct the left guide to place himself on the left of the front rank, which being executed, he will command:

1. *Company.* 2. *Shoulder* — ARMS.

3. *To the rear, open order.*

At the last command, the covering sergeant (or orderly sergeant), and the left guide, will step off smartly to the rear, four paces of twenty-eight inches from the front rank, in order to mark the position for the rear rank. They will judge this distance by the eye without counting the steps.

The instructor will place himself at the same time on the right flank, in order to observe if these two non-commissioned officers are on a line parallel to the front rank; and, if necessary, to correct their positions, which being executed, he will command:

[1] When the company is in good discipline, the files may be formed in *two* ranks at once, each man having his proper number in the company depending upon his height, and being able to take his appropriate place without creating confusion.

4. MARCH.

At this command the front rank will stand fast. The rear rank will step to the rear without counting the steps, and will place themselves on the alignment marked for this rank, each man stepping slightly behind the line, and then dressing forward as in the backward dress. The covering sergeant will dress the rear rank on the left guide placed to mark the left of this rank. The instructor seeing the rear rank aligned, will command:

5. FRONT.

At this command, the sergeant on the left of the rear rank will return to his place as a file-closer.

Alignments in open ranks.

218. The ranks being open, the instructor will, in the first exercises, align the ranks, man by man, the better to inculcate the principles. To effect this, he will cause two or four men on the right or left of each rank to march two or three paces forward, and, after having aligned them, command:

By file, right (or *left*) — DRESS.

At this, the men of each rank will move up successively on the alignment, each man being preceded by his neighbor in the same rank, towards the basis, by two paces, and having correctly aligned himself, will cast his eyes to the front.

219. Successive alignments having habituated the soldier to dress correctly, the instructor will cause the ranks to align themselves at once, forward and backward, sometimes in a direction parallel, and sometimes in one oblique to the original direction, giving, in each case, two or four men to serve as a basis of alignment to each rank. To effect which, he will command:

1. *Right* (or *left*) — DRESS. 2. FRONT;

or,

1. *Right* (or *left*) *backward* — DRESS. 2. FRONT.

In oblique alignments, in opened ranks, the men of the rear rank will not seek to cover their file leaders, as the sole object of the

exercise is to teach them to align themselves correctly in their respective ranks, in the different directions.

In the several alignments, the captain will superintend the front rank, and the covering sergeant the rear rank. For this purpose they will place themselves on the side by which the ranks are dressed.

In oblique alignments, the men will conform the line of their shoulders to the new direction of their ranks, and will place themselves on the alignment as has been prescribed in the school of the soldier, according as the new direction shall be in front or rear of the original one.

To close ranks.

220. The instructor will command:

1. *Close order.* 2. MARCH.

At the command *march*, the rear rank will close up in quick time, each man directing himself on his file leader.

Alignments in closed ranks.

221. The ranks being closed, the instructor will cause to be executed parallel and oblique alignments by the right and left, forward and backward, observing to place always two or four files as a basis of alignment. He will give the same commands prescribed for *opened* ranks.

In alignments in closed ranks, the captain will superintend the front rank, and the covering sergeant the rear rank. They will habituate themselves to judge the alignment by the lines of the eyes and shoulders, in casting a glance of the eye along the front and rear of the ranks.

The moment the captain perceives the greater number of the front rank aligned, he will command FRONT, and rectify afterwards, if necessary, the alignment of the other men by ordering *this* or *that* file *forward* or *back*, designating each by its number. The rear rank will conform to the alignment of the front rank, superintended by the covering sergeant.

The ranks being steady, the instructor will place himself on the flank to verify their alignment. He will also see that each rear rank man covers accurately his file leader.

In all alignments, the file-closers will preserve the distance of two paces from the rear rank.

The alignments being ended the instructor will exercise the company at the manual, and finish with stacking arms as follows:

To Stack Arms.

222. The men being at order arms, the instructor will command:

Stack — ARMS.

At this command, the front rank man of every even numbered file will pass his piece before him, seizing it with the left hand above the middle band, and place the butt behind and near the right foot of the man next on the left, the barrel turned to the front. At the same time the front rank man of every odd numbered file will pass his piece before him, seizing it with the left hand below the middle band, and hand it to the man next on the left; the latter will receive it with the right hand two inches above the middle band, throw the butt about thirty-two inches to the front, opposite to his right shoulder, incline the muzzle towards him, and lock the shanks of the two bayonets; the lock of this second piece towards the right, and its shank above that of the first piece. The rear rank man of every even file will project his bayonet forward, and introduce it (using both hands) between and under the shanks of the two other bayonets. He will then abandon the piece to his file leader, who will receive it with the right hand under the middle band, bring the butt to the front, holding up his own piece and the stack with the left hand, and place the butt of this third piece between the feet of the man next on the right, the S plate to the rear. The stack thus formed, the rear rank man of every odd file will pass his piece into his left hand, the barrel turned to the front, and, sloping the bayonet forward, rest it on the stack.

223. If the company be armed with *rifles*, or any piece without the bayonet, arms will be stacked by the same commands, and in

the following manner: At the command *stack arms*, the front rank man of every even numbered file will pass his piece before him, seizing it with the left hand near the upper band; will place the butt a little in advance of his left toe, the barrel turned towards the body, and draw the rammer slightly from its place; the front rank man of every odd numbered file will also draw the rammer slightly, and pass his piece to the man next on his left, who will seize it with the right hand near the upper band, and place the butt a little in advance of the right toe of the man next on his right, the barrel turned to the front; he will then cross the rammers of the two pieces, the rammer of the piece of the odd numbered man being inside; the rear rank man of every even file will also draw his rammer, lean his piece forward, the lock-plate downwards, advance the right foot about six inches, and insert the rammer between the rammer and barrel of the piece of his front rank man; with his left hand he will place the butt of his piece on the ground, thirty-two inches in rear of, and perpendicular to, the front rank, bringing back his right foot by the side of the left; the front rank man of every even file will at the same time lean the stack to the rear, quit it with his right hand, and force all the rammers down. The stack being thus formed, the rear rank man of every odd file will pass his piece into his left hand, the barrel to the front, and inclining it forward, will rest it on the stack.

224. The men of both ranks having taken the position of the soldier without arms, the instructor will command:

1. *Break ranks.* 2. MARCH.

To Resume Arms.

Both ranks being re-formed in rear of their stacks, the instructor will command:

Take — ARMS.

At this command, the rear rank man of every odd numbered file will withdraw his piece from the stack; the front rank man of every even file will seize his own piece with the left hand, and that of the man on his right with his right hand, both above the lower band;

the rear rank man of the even file will seize his piece with the right hand below the lower band; these two men will raise up the stock to loosen the rammers or bayonets; the front rank man of every odd file will facilitate the disengagement of the rammers, if necessary, by drawing them out slightly with the left hand, and will receive his piece from the hand of the man next on his left; the four men will retake the position of the soldier at order arms.

The firings.

To fire by company.

225. The instructor, wishing to cause the fire by company to be executed, will command:

1. *Fire by company.* 2. *Commence firing.*

At the first command, the captain will promptly place himself opposite the centre of his company, and four paces in rear of the line of file-closers: the covering sergeant will retire to that line, and place himself opposite to his interval. *This rule is general, for both the captain and covering sergeant, in all the different firings.*

At the second command, the captain will add:

1. *Company.* 2. READY. 3. AIM. 4. FIRE. 5. LOAD.

At the command *load*, the men will load their pieces, and then take the position of *ready*, as prescribed in the school of the soldier.

The captain will immediately recommence the firing, by the commands:

1. *Company.* 2. AIM. 3. FIRE. 4. LOAD.

The firing will be thus continued until the signal to cease firing is sounded.

The captain will sometimes cause aim to be taken to the right or left, simply observing to pronounce *right* (or *left*) *oblique*, before the command *aim*.

The fire by file.

226. The instructor wishing to cause the fire by file to be executed, will command:

1. *Fire by file.* 2. *Company.* 3. READY. 4. *Commence firing.*

The third and fourth commands will be executed as prescribed in the school of the soldier.

The fire will be commenced by the right file of the company; the next file will take aim at the instant the first brings down pieces to reload, and so on to the left; but this progression will only be observed in the first discharge, after which each man will reload and fire without regulating himself by others, conforming himself to what is prescribed in the school of the soldier.

The fire by rank.

227. The instructor wishing the fire by rank to be executed, will command:

1. *Fire by rank.* 2. *Company.* 3. READY. 4. *Rear rank* — AIM. 5. FIRE. 6. LOAD.

The fifth and sixth commands will be executed as is prescribed in the school of the soldier.

When the instructor sees one or two pieces in the rear rank at a ready, he will command:

1. *Front rank.* 2. AIM. 3. FIRE. 4. LOAD.

The firing will be continued thus by alternate ranks, until the signal is given to cease firing.

228. The instructor will sometimes cause aim to be taken to the right and left, conforming to what is prescribed for the oblique fire.

The instructor will cause the firing to cease, whether by company, by file, or by rank, by sounding the signal to *cease firing;* at which signal the men will cease to fire. If they have fired, they will load their pieces and bring them to a shoulder; if at the position of *ready*, they will half-cock and shoulder arms. If in the position of *aim*, they will bring down their pieces, half-cock, and shoulder arms.

229. The signal to cease firing will be always followed by a bugle note, or tap of the drum; at which sound, the captain and covering sergeant will promptly resume their places in line, and will rectify, if necessary, the alignment of the ranks.

The fire by file being that which is most frequently used against an enemy, it is highly important that it be rendered perfectly familar to the troops. The instructor will, therefore, give it almost exclusive preference, and labor to cause the men to aim with care, and always, if possible, at some particular object. As it is of the utmost importance that the men should aim with precision in battle, this principle will be rigidly enforced in the exercises for purposes of instruction.

To fire by the rear rank.

230. The instructor will cause the several fires to be executed to the rear, that is, by the rear rank. To effect this, he will command:

1. *Face by the rear rank.* 2. *Company.* 3. *About* — FACE.

At the first command, the captain will step out and place himself near to, and facing the right file of his company; the covering sergeant and file-closers will pass quickly through the captain's interval, and place themselves faced to the rear, the covering sergeant a pace behind the captain, and the file-closers two paces from the front rank opposite to their places in line, each passing behind the covering sergeant.

At the third command, which will be given at the instant the last file-closer shall have passed through the interval, the company will face about; the captain will place himself in his interval in the rear rank, now become the front, and the covering sergeant will cover him in the front rank, now become the rear.

The company having faced by the rear rank, the instructor will cause it to execute the fire by company, both direct and oblique, the fire by file, and the fire by rank, by the commands and means prescribed. The captain, covering sergeant, and the men will conform themselves, in like manner, to what is prescribed.

The fire by file will commence on the left of the company, now become the right. In the fire by rank the firing will commence with the front rank, now become the rear.

To resume the proper front, the instructor will command:

1. *Face by the front rank.* 2. *Company.* 3. *About* — FACE.

At the first command, the captain, covering sergeant, and file-closers will conform to what is prescribed above.

At the third command, the company having faced about, the captain and covering sergeant will resume their places in line.

In this lesson, the instructor will impress on the men the importance of aiming always at some particular object, and of holding the piece as prescribed in the school of the soldier.

The instructor will recommend to the captain to make a short pause between the commands *aim* and *fire*, to give the men time to aim with accuracy.

To advance in line of battle.

231. The company being in line of battle, and correctly aligned, when the instructor shall wish to exercise it in marching by the front, he will assure himself that the shoulders of the captain and covering sergeant are perfectly in the direction of their respective ranks, and that the sergeant accurately covers the captain; the instructor will then place himself twenty-five or thirty paces in front of them, face to the rear, and place himself exactly on the prolongation of the line passing between their heels.

The instructor, being aligned on the directing file, will command:

1. *Company, forward.*

At this, a sergeant, previously designated, will move six paces in advance of the captain: the instructor, from the position prescribed, will correctly align this sergeant on the prolongation of the directing file.

This advanced sergeant, who is to be charged with the direction, will, the moment his position is assured, take two points on the ground in the straight line which would pass between his own and the heels of the instructor.

These dispositions being made, the instructor will step aside, and command:

2. MARCH.

At this, the company will step off with life. The directing sergeant will observe, with the greatest precision, the length and

cadence of the step, marching on the two points he has chosen; he will take in succession, and always a little before arriving at the point nearest to him, new points in advance, exactly in the same line with the first two, and at the distance of some fifteen or twenty paces from each other. The captain will march steadily in the trace of the directing sergeant, keeping always six paces from him; the men will each maintain the head direct to the front, feel lightly the elbow of his neighbor on the side of direction, and conform himself to the principles prescribed, school of the soldier, for the march by the front.

The man next to the captain will take special care not to pass him; to this end, he will keep the line of his shoulders a little in the rear, but in the same direction with those of the captain.

The file-closers will march at the habitual distance of two paces behind the rear rank.

If the men lose the step, the instructor will command:

To the — STEP.

At this command, the men will glance towards the directing sergeant, retake the step from him, and again direct their eyes to the front.

The instructor will cause the captain and covering sergeant to be posted sometimes on the right, and sometimes on the left of the company.

The directing sergeant, in advance, having the greatest influence on the march of the company, he will be selected for the precision of his step, his habit of maintaining his shoulders in a square with a given line of direction, and of prolonging that line without variation.

To halt the company, marching in line of battle, and to align it.

The instructor, wishing to halt the company, will command:

1. *Company.* 2. HALT.

At the second command, the company will halt; the directing sergeant will remain in advance, unless ordered to return to the line of file closers. The company being at a halt, the instructor may

advance the first three or four files on the side of direction, and align the company on that basis, or he may confine himself to causing the alignment to be rectified. In this last case, he will command: *Captain, rectify the alignment.* The captain will direct the covering sergeant to attend to the rear rank, when each, glancing his eyes along his rank, will promptly rectify it, conforming to what is prescribed in the school of the soldier.

Oblique march in line of battle.

232. The company being in the direct march, when the instructor shall wish to cause it to march obliquely, he will command:

1. *Right* (or *left*) *oblique.* 2. MARCH.

At the command *march*, the company will take the oblique step. The men will accurately observe the principles prescribed in the school of the soldier. The rear rank men will preserve their distances, and march in rear of the man next on the right (or left) of their habitual file leaders.

When the instructor wishes the direct march to be resumed, he will command:

1. *Forward.* 2. MARCH.

At the command *march*, the company will resume the direct march. The instructor will move briskly twenty paces in front of the captain, and facing the company, will place himself exactly in the prolongation of the captain and covering sergeant; and then, by a sign, will move the directing sergeant on the same line, if he be not already on it; the latter will immediately take two points on the ground between himself and the instructor, and as he advances, will take new points of direction.

In the oblique march, the men not having the touch of elbows, the guide will always be on the side towards which the oblique is made, without any indication to that effect being given; and when the direct march is resumed, the guide will be, equally without indication, on the side where it was previous to the oblique.

To mark time, to march in double quick time, and the back step.

233. The company being in the direct march and in quick time, the instructor, to cause it to mark time, will command:

1. *Mark time.* 2. MARCH.

To resume the march, he will command:

1. *Forward.* 2. MARCH.

To cause the march in double quick time, the instructor will command:

1. *Double quick.* 2. MARCH.

The command *march* will be pronounced at the instant either foot is coming to the ground.

To resume quick time, the instructor will command:

1. *Quick time.* 2. MARCH.

The command *march* will be pronounced at the instant either foot is coming to the ground.

The company being at a halt, the instructor may cause it to march in the back step; to this effect, he will command:

1. *Company backward.* 2. MARCH.

The back step will be executed according to the principles prescribed in the school of the soldier, but the use of it being rare, the instructor will not cause more than fifteen or twenty steps to be taken in succession, and to that extent but seldom.

The instructor ought not to exercise the company in marching in double quick time till the men are well established in the length and swiftness of the pace in quick time; he will then endeavor to render the march of 165 steps in the minute equally easy and familiar, and also cause them to observe the same erectness of body and composure of mind, as if marching in quick time.

To march in retreat.

234. The company being halted and correctly aligned, when the instructor shall wish to cause it to march in retreat, he will command:

1. *Company.* 2. *About*—FACE.

The company having faced to the rear, the instructor will place himself in front of the directing file.

The instructor, being correctly established on the prolongation of the directing file, will command:

3. *Company, forward.*

At this, the directing sergeant will conform himself to what is prescribed No. 231, with this difference—he will place himself six paces in front of the line of file-closers, now leading.

The covering sergeant will step into the line of file-closers, opposite to his interval, and the captain will place himself in the rear rank, now become the front.

This disposition being promptly made, the instructor will command:

4. MARCH.

At this, the directing sergeant, the captain, and the men, will conform themselves to what is prescribed No. 231.

The instructor will cause to be executed, marching in retreat, all that is prescribed for marching in advance; the commands and the means of execution will be the same.

The instructor having halted the company, will, when he may wish, cause it to face to the front. The captain, the covering sergeant, and the directing sergeant, will resume their habitual places in line, the moment they shall have faced about.

235. The company being in march by the front rank, if the instructor should wish it to march in retreat, he will cause the right about to be executed while marching, and to this effect will command:

1. *Company.* 2. *Right about.* 3. MARCH.

At the third command, the company will promptly face about, and recommence the march by the rear rank.

The directing sergeant will face about with the company, and will move rapidly six paces in front of the file-closers, and upon the prolongation of the guide. The instructor will place him in the proper direction by the means prescribed. The captain, the covering ser-

geant, and the men, will conform to the principles prescribed for the march in retreat.

When the instructor wishes the company to march by the front rank, he will give the same commands, and will regulate the direction of the march by the same means.

236. The instructor will cause all the above marches, except the backward march, to be executed in the double quick time; the latter will be executed only in quick time. He will give the same commands, observing to add *double quick* before the command *march.*

When the pieces are carried on the right shoulder, in quick time, the distance between the ranks will be sixteen inches. Whenever, therefore, the instructor brings the company from a shoulder to this position, the rear rank must shorten a little the first steps in order to gain the prescribed distance, and will lengthen the steps, on the contrary, in order to close up when the pieces are again brought to a shoulder. In marching in double quick time, the distance between the ranks will be twenty-six inches, and the pieces will be carried habitually on the right shoulder.

Whenever a company is halted, the men will bring their pieces at once to a shoulder at the command *halt.* The rear rank will close to its proper distance. *These rules are general.*

To march by the flank.

237. The company being in line of battle, and at a halt, when the instructor shall wish to cause it to march by the right flank, he will command:

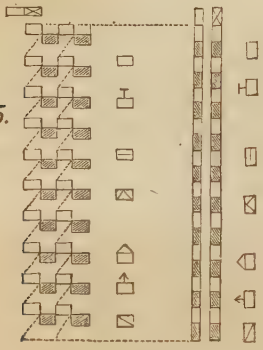
1. *Company, right* — FACE. 2. *Forward.* 3. MARCH.

(Fig. 45.) At the first command, the company will face to the right, the covering sergeant will place himself at the head of the front rank, the captain having stepped out for the purpose, so far as to find himself by the side of the sergeant, and on his left; the two ranks will form to the right at the word, the rear rank will step off one pace to the right, then the even numbers of both ranks will step up to the right of the odd, as directed in the school of the soldier; so that when the movement is completed, the files will be formed of

four men aligned, and elbow to elbow. The intervals will be preserved.

The file closers will also move by side step to the right, so that when the ranks are formed, they will be two paces from the rear-most rank.

Fig 15.



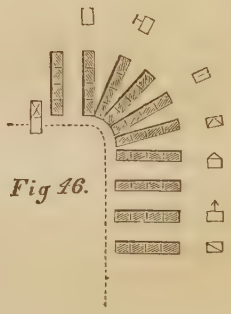


Fig 16.

At the command *march,* the company will move off briskly in quick time; the covering sergeant at the head of the front rank, and the captain on his left, will march straight forward. The men of each file will march abreast of their respective front rank men, heads direct to the front; the file-closers will march opposite their places in line of battle.

The instructor will cause the march by the left flank to be executed by the same commands, substituting left for right; the rear rank steps one pace to the left, then the odd files of both ranks take their places to the left of the even numbered.

At the instant the company faces to the left, the left guide will place himself at the head of the front rank; the captain will pass rapidly to the left, and place himself by the right side of this guide; the covering sergeant will replace the captain in the front rank, the moment the latter quits it to go to the left.

The instructor will sometimes exercise the company in facing without doubling, for this purpose he will command:

1. *Company, in two ranks, right*—2. FACE.

The *double quick*, however, will never be executed without the ranks being doubled.

To change direction by file.

238. The company being faced by the flank, and either in march, or at a halt, when the instructor shall wish to cause it to wheel by file, he will command:

1. *By file, left,* (or *right.*) 2. MARCH.

(Fig. 46.) At the command *march*, the first file will wheel; if to the side of the front rank man, the latter will take care not to turn at once, but to describe a short arc of a circle, shortening a little the first five or six steps in order to give time to the fourth man of this file to conform himself to the movement. If the wheel be to the side of the rear rank, the front rank man will wheel in the step of twenty-eight inches, and the fourth man will conform himself to the movement by describing a short arc of a circle as has been explained. Each file will come to wheel on the same ground where that which preceded it wheeled.

The instructor will see that the wheel be executed according to these principles, in order that the distance between the files may always be preserved, and that there be no check or hindrance at the wheeling point.

To halt the company marching by the flank, and to face it to the front.

239. To effect these objects, the instructor will command:

1. *Company.* 2. HALT. 3. FRONT.

The second and third commands will be executed as prescribed in the school of the soldier. As soon as the files have undoubled the rear rank will close to its proper distance. The captain and covering sergeant, as well as the left guide, if the march be by the left flank, will return to their habitual places in line at the instant the company faces to the front.

The instructor may then align the company by one of the means prescribed.

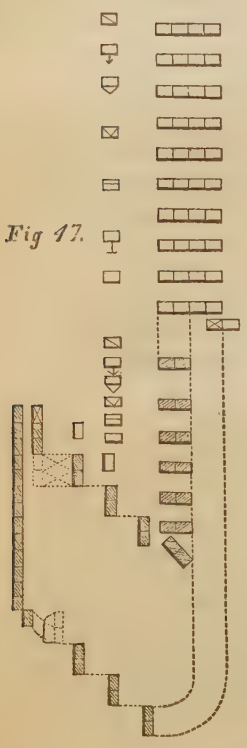
The company being in march by the flank, to form it on the right (or left) by file into line of battle.

240. If the company be marching by the right flank, the instructor will command:

1. *On the right, by file into line.* 2. MARCH.

(Fig. 47.) At the command *march*, the rear rank men doubled will mark time; the captain and the covering sergeant will turn to the right, march straight forward, and be halted by the instructor when they shall have passed at least six paces beyond the rank of file-closers; the captain will place himself correctly on the line of battle, and will direct the alignment as the men of the front rank successively arrive; the covering sergeant will place himself behind the captain at the distance of the rear rank; the two men on the right of the front rank doubled, will continue to march, and passing beyond the covering sergeant and the captain, will turn to the right; after turning, they will continue to march elbow to elbow, and direct themselves towards the line of battle, but when they shall arrive at two paces from this line, the even number will shorten the step so that the odd number may precede him on the line, the odd number placing himself by the side and on the left of the captain; the even number will afterwards oblique to the left, and place himself on the left of the odd number; the next two men of the front rank doubled, will pass in the same manner behind the two first, turn then to the right, and place themselves, according to the means just explained, to the left, and by the side of, the two men already established on

Fig 47.



the line; the remaining files of this rank will follow in succession, and be formed to the left in the same manner. The rear rank doubled will execute the movement in the manner already explained for the front rank, taking care not to commence the movement until four men of the front rank are established on the line of battle; the rear rank men, as they arrive on the line, will cover accurately their file leaders.

If the company be marching by the left flank, the instructor will cause it to form by file on the left into line of battle, according to the same principles and by the same commands, substituting the indication *left* for *right*. In this case, the odd numbers will shorten the step, so that the even numbers may precede them on the line. The captain, placed on the left of the front rank, and the left guide, will return to their places in line of battle, by order of the instructor, after the company shall be formed and aligned.

To enable the men the better to comprehend the mechanism of this movement, the instructor will at first cause it to be executed separately by each rank doubled, and afterwards by the two ranks united and doubled.

The company being in march by the flank, to form it by company, or by platoon, into line, and to cause it to face to the right and left in marching.

241. The company being in march by the right flank, the instructor will order the captain to form it into line; the captain will immediately command:

1. *By company into line.* 2. MARCH.

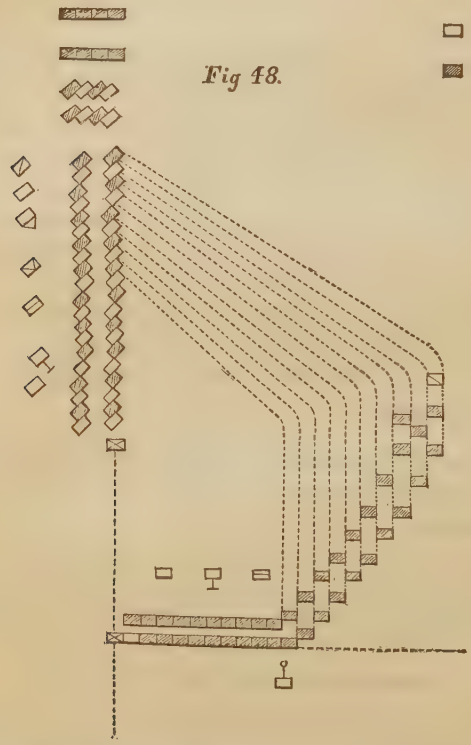
(Fig. 48.) At the command *march*, the covering sergeant will continue to march straight forward; the men will advance the right shoulder, take the double quick step, and move into line by the shortest route, taking care to undouble the files, and to come on the line one after the other.

As the front rank men successively arrive in line with the covering sergeant, they will take from him the step, and then turn their eyes to the front.

The men of the rear rank will conform to the movements of their respective file leaders, but without endeavoring to arrive in line at the same time with the latter.

At the instant the movement begins, the captain will face to his company in order to follow up the execution; and, as soon as the

Fig 48.



company is formed, he will command, *guide left*, place himself two paces before the centre, face to the front, and take the step of the company.

At the command *guide left*, the second sergeant will promptly place himself in the front rank, on the left, to serve as guide, and the covering sergeant who is on the opposite flank will remain there.

When the company marches by the left flank, this movement will be executed by the same commands, and according to the same principles; the company being formed, the captain will command *guide right*, and place himself in front of his company as above; the covering sergeant who is on the right of the front rank will serve as guide, and the second sergeant placed on the left flank will remain there.

Thus, supposing the company to constitute a part of a column by company, right or left in front, the covering sergeant and the second sergeant of each company will always be placed on the right and left, respectively, of the front rank; they will be denominated *right guide* and *left guide*, and the one or the other charged with the direction.

The company being in march by the flank, if it be the wish of the instructor to cause it to form platoons, he will give an order to that effect to the captain, who will command:

1. *By platoon, into line.* 2. MARCH.

The movement will be executed by each platoon according to the above principles. The captain will place himself before the centre of the first platoon, and the first lieutenant before the centre of the second, passing through the opening made in the centre of the company, if the march be by the right flank, and around the left of his platoon, if the march be by the left: in this last case, the captain will also pass around the left of the second platoon in order to place himself in front of the first. Both the captain and lieutenant, without waiting for each other, will command *guide left* (or *right*) at the instant their respective platoons are formed.

At the command *guide left* (or *right*), the guide of each platoon will pass rapidly to the indicated flank of the platoon, if not already there.

The right guide of the company will always serve as the guide of the right or left of the first platoon, and the left guide of the company will serve, in like manner, as the guide of the second platoon.

Thus in a column, by platoon, there will be but one guide to each

platoon; he will always be placed on its left flank, if the right be in front, and on the right flank, if the left be in front.

In these movements, the file-closers will follow the platoons to which they are attached.

The instructor may cause the company, marching by the flank, to form by company, or by platoon, into line, by his own direct commands, using those prescribed for the captain.

The instructor will exercise the company in passing, without halt, from the march by the front, to the march by the flank, and reciprocally. In either case, he will employ the commands prescribed in the school of the soldier, substituting *company* for *squad*. The company will face to the right or left, in marching, and the captain, the guides, and file-closers will conform themselves to what is prescribed for each in the march by the flank, or in the march by the front of a company supposed to be a subdivision of a column.

If, after facing to the right or left, in marching, the company find itself faced by the rear rank, the captain will place himself two paces behind the centre of the front rank, now in the rear, the guides will pass to the rear rank, now leading, and the file-closers will march in front of this rank.

The instructor, in order to avoid fatiguing the men, and to prevent them from being negligent in the position of shoulder arms, will sometimes order support arms in marching by the flank, and arms on the right shoulder, when marching in line.

To break into column by platoon, either at a halt or in march.

242. The company being at a halt, in line of battle, the instructor, wishing to break it into column, by platooon to the right, will command:

1. *By platoon, right wheel.* 2. MARCH.

(Fig. 49.) At the first command, the chiefs of platoons will rapidly place themselves two paces before the centres of their respective platoons, the lieutenant passing around the left of the company. They need not occupy themselves with dressing, one upon the other. The covering sergeant will replace the captain in the front rank.

At the command *march*, the right front rank man of each platoon will face to the right, the covering sergeant standing fast, the chief of each platoon will move quickly by the shortest line, a little beyond the point at which the marching flank will rest when the wheel shall be completed, face to the late rear, and place himself so that the line which he forms with the man on the right (who had faced), shall be perpendicular to that occupied by the company in line of battle; each platoon will wheel according to the principles prescribed for the wheel on a fived pivot, and when the man who conducts the marching flank shall approach near to the perpendicular, its chief will command:

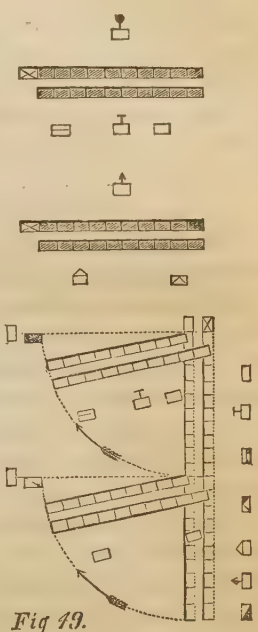


Fig 19.

1. *Platoon.* 2. HALT.

At the command *halt*, which will be given at the instant the man who conducts the marching flank shall have arrived at three paces from the perpendicular, the platoon will halt; the covering sergeant will move to the point where the left of the first platoon is to rest, passing by the front rank; the second sergeant will place himself, in like manner, in respect to the second platoon. Each will take care to leave between himself and the man on the right of his platoon, a space equal to its front; the captain and first lieutenant will look to this, and each take care to align the sergeant between himself and the man of the platoon who had faced to the right.

The guide of each platoon, being thus established on the perpendicular, each chief will place himself two paces outside of his guide, and facing towards him, will command:

3. *Left* — DRESS.

The alignment being ended, each chief of platoon will command, FRONT, and place himself two paces before its centre.

The file-closers will conform themselves to the movement of their respective platoons, preserving always the distance of two paces from the rear rank.

The company will break by platoon to the left, according to the same principles. The instructor will command:

1. *By platoon, left wheel.* 2. MARCH.

The first command will be executed in the same manner as if breaking by platoon to the right.

At the command *march*, the left front rank man of each platoon will face to the left, and the platoons will wheel to the left, according to the principles prescribed for the wheel on a fixed pivot; the chiefs of platoon will conform to the principles indicated.

At the command *halt*, given by the chief of each platoon, the covering sergeant on the right of the front rank of the first platoon, and the second sergeant near the left of the second platoon, will each move to the points where the right of his platoon is to rest. The chief of each platoon should be careful to align the sergeant between himself and the man of the platoon who had faced to the left, and will then command:

Right — DRESS.

The platoons being aligned, each chief of platoon will command, FRONT, and place himself opposite its centre.

243. The instructor wishing to break the company by platoon to the right, and to move the column forward after the wheel is completed, will caution the company to that effect, and command:

1. *By platoon, right wheel.* 2. MARCH.

At the first command, the chiefs of platoon will move rapidly in front of their respective platoons, conforming to what has been prescribed, and will remain in this position during the continuance of the wheel. The covering sergeant will replace the chief of the first platoon in the front rank.

At the command *march,* the platoons will wheel to the right, conforming to the principles herein prescribed; the man on the pivot will not face to the right, but will mark time, conforming himself to the movement of the marching flank; and when the man who is on the left of this flank shall arrive near the perpendicular, the instructor will command:

3. *Forward.* 4. MARCH. 5. *Guide left.*

At the fourth command, which will be given at the instant the wheel is completed, the platoons will move straight to the front, all the men taking the step of twenty-eight inches. The covering sergeant and the second sergeant will move rapidly to the left of their respective platoons, the former passing before the front rank. The leading guide will immediately take points on the ground in the direction which may be indicated to him by the instructor.

At the fifth command, the men will take the touch of elbows lightly to the left.

If the guide of the second platoon should lose his distance, or the line of direction, he will conform to the principles herein prescribed.

If the company be marching in line to the front, the instructor will cause it to break by platoon to the right by the same commands. At the command *march,* the platoons will wheel in the manner already explained; the man on the pivot will take care to mark time in his place, without advancing or receding; the instructor, the chiefs of platoon, and the guides, will conform to what has been prescribed.

The company may be broken by platoons to the left, according to the same principles, and by inverse means, the instructor giving the commands prescribed, substituting *left* for *right,* and reciprocally.

To march in column.

244. The company having broken by platoon, right (or left) in front, the instructor, wishing to cause the column to march, will throw himself twenty-five or thirty paces in front, face to the

guides, place himself correctly, on their direction, and caution the leading guide to take points on the ground.

The instructor being thus placed, the guide of the leading platoon will take two points on the ground in the straight line passing between his own and the heels of the instructor.

These dispositions being made, the instructor will step aside, and command:

1. *Column forward.* 2. *Guide left* (or *right*). 3. MARCH.

At the command *march*, promptly repeated by the chiefs of platoon, they, as well as the guides, will lead off, by a decided step, their respective platoons, in order that the whole may move smartly, and at the same moment.

The men will each feel lightly the elbow of his neighbor towards the guide, and conform himself, in marching, to the principles prescribed in the school of the soldier. The man next to the guide, in each platoon, will take care never to pass him, and also to march always about six inches to the right (or left) from him, in order not to push him out of the direction.

The leading guide will observe, with the greatest precision, the length and cadence of the step, and maintain the direction of his march by the means prescribed.

The following guide will march exactly in the trace of the leading one, preserving between the latter and himself a distance precisely equal to the front of his platoon, and marching in the same step with the leading guide.

To change direction.

The changes of direction of a column while marching, will be executed according to the principles prescribed for wheeling on the march. Whenever, therefore, a column is to change direction, the instructor will change the guide, if not already there, to the flank opposite the side to which the change is to be made.

245. The column being in march right in front, if it be the wish of the instructor to change direction to the right, he will give the order to the chief of the first platoon, and immediately go himself,

or send a marker to the point at which the change of direction is to be made; the instructor, or marker, will place himself on the direction of the guides, so as to present the breast to that flank of the column.

The leading guide will direct his march on that person, so that, in passing, his left arm may just graze his breast. When the leading guide shall have approached near to the marker, the chief of his platoon will command:

1. *Right wheel.* 2. MARCH.

(Fig. 50.) The first command will be given when the platoon is at the distance of four paces from the marker.

At the command *march*, which will be pronounced at the instant the guide shall have arrived opposite the marker, the platoon will wheel to the right, conforming to what is prescribed in the school of the soldier.

The wheel being finished, the chief of each platoon will command:

3. *Forward.* 4. MARCH.

These commands will be pronounced and executed as is prescribed in the school of the soldier. The guide of the first platoon will take points on the ground in the new direction, in order the better to regulate the march.

The second platoon will continue to march straight forward till up with the marker, when it will wheel to the right, and re-take the direct march by the same commands and the same means which governed the first platoon.

The column being in march right in front, if the instructor should wish to change direction to the left, he will command, *guide right*. At this command, the two guides will move rapidly to the right of their respective platoons, each passing in front of his subdivision; the men will take the touch of elbows to the right; the instructor will afterwards conform to what is prescribed.

The change of direction to the left will then be executed according to the same principles as the change of direction to the right, but by inverse means.

When the change of direction is completed, the instructor will command, *guide left.*

Fig 51.

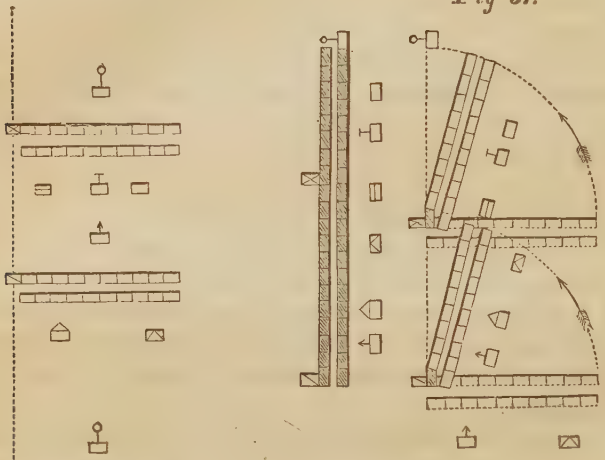
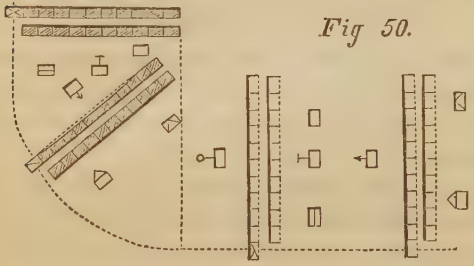


Fig 50.



The changes of direction in a column, left in front, will be executed according to the same principles.

In changes of direction in double quick time, the platoons will wheel according to the principles prescribed in the school of the soldier.

In order to prepare the men for those formations in line, which can be executed only by turning to the right or the left, the instructor will sometimes cause the column to change direction to the side of the guide. In this case, the chief of the leading platoon

will command: *Left* (or *right*) *turn*, instead of *left* (or *right*) *wheel.* The subdivisions will each turn, in succession, conforming to what is prescribed in the school of the soldier. The leading guide, as soon as he has turned, will take points on the ground, the better to regulate the direction of the march.

To halt the column.

The column being in march, when the instructor shall wish to halt it, he will command:

1. *Column.* 2. HALT.

At the second command, promptly repeated by the chiefs of platoon, the column will halt; the guides also will stand fast, although they may have lost both distance and direction.

If the command *halt* be not repeated with the greatest vivacity, and executed at the same instant, distances will be lost.

If a guide, having lost his distance, seek to recover it after that command, he will only throw his fault on the following guide, who, if he have marched well, will no longer be at his proper distance; and if the latter regain what he has thus lost, the movement will be propagated to the rear of the column.

Being in column by platoon, to form to the right or left into line of battle, either at a halt or on the march.

246. The instructor having halted the column, right in front, and wishing to form it into line of battle, will place himself at platoon distance in front of the leading guide, face to him, and rectify, if necessary, the position of the guide beyond; which being executed, he will command:

Left — DRESS.

At this command, which will not be repeated by the chiefs of platoon, each of them will place himself briskly two paces outside of his guide, and direct the alignment of the platoon perpendicularly to the direction of the column.

Each chief having aligned his platoon, will command FRONT, and return quickly to his place in column.

This disposition being made, the instructor will command:

1. *Left into line, wheel.* 2. MARCH.

(Fig. 51.) At the command *march*, briskly repeated by the chiefs of platoon, the front rank man on the left of each platoon will face to the left, and place his breast lightly against the arm of the guide by his side, who stands fast; the platoons will wheel to the left on the principle of wheels from a halt, and in conformity to what is prescribed. Each chief will turn to his platoon to observe its movement, and when the marching flank has approached near the line of battle, he will command:

1. *Platoon.* 2. HALT.

The command *halt* will be given when the marching flank of the platoon is three paces from the line of battle.

The chief of the second platoon having halted it, will return to his place as a file-closer, passing around the left of his subdivision.

The captain having halted the first platoon, will move rapidly to the point at which the right of the company will rest in line of battle, and command:

Right — DRESS.

At this command, the two platoons will dress up on the alignment; the front rank man on the right of the leading platoon, who finds himself opposite the instructor established on the direction of the guides, will place his breast lightly against the left arm of this officer. The captain will direct the alignment from the right on the man on the opposite flank of the company.

The company being aligned, the captain will command:

FRONT.

The instructor seeing the company in line of battle, will command:

Guides — POSTS.

At this command, the covering sergeant will cover the captain, and the left guide will return to his place as a file-closer.

If the column be left in front, and the instructor should wish to form it to the right into line of battle, he will place himself at platoon distance in front of the leading guide, face to him, and rectify, if necessary, the position of the guide beyond; which being executed, he will command:

1. *Right into line, wheel.* 2. MARCH.

At the command *march*, the front rank man on the right of each platoon will face to the right and place his breast lightly against the left arm of the guide by his side, who stands fast; each platoon will wheel to the right, and will be halted by its chief, when the marching flank has approached near the line of battle; for this purpose, the chief of each platoon will command:

1. *Platoon.* 2. HALT.

The command *halt* will be given when the marching flank of the platoon is three paces from the line of battle. The chief of the second platoon having halted his platoon, will resume his place in the rank of file-closers.

The captain having halted the first platoon, will move briskly to the point at which the left of the company will rest, and command:

Left — DRESS.

At this command, the two platoons will dress up on the alignment; the man on the left of the second platoon, opposite the instructor, will place his breast lightly against the right arm of this officer, and the captain will direct the alignment from the left on the man on the opposite flank of the company.

The company being aligned, the captain will command:

FRONT.

The instructor will afterwards command:

Guides — POSTS.

At this command, the captain will move to the right of his company, the covering sergeant will cover him, and the left guide will return to his place as a file-closer.

247. If the column be marching right in front, and the instructor should wish to form it into line without halting the column, he will give the command:

1. *Left into line, wheel.* 2. MARCH.

and will himself move rapidly to platoon distance in front of the leading guide.

At the command *march*, briskly repeated by the chiefs of platoons, the front rank man on the left of each platoon will face to the left, and place his breast lightly against the arm of the guide by his side, who stands fast; the platoons will wheel to the left on the principle of wheels from a halt. Each chief will turn to his platoon to observe its movement, and conform to what is prescribed for wheeling into line from a halt.

If the column be in march left in front, this formation will be made according to the same principles, and by inverse means.

248. If the column be marching right in front, and the instructor should wish to form it into line without halting the column, and to march the company in line to the front, he will command:

1. *By platoons left wheel.* 2. MARCH.

At the command *march*, briskly repeated by the chiefs of platoon, the left guides will halt; the man next to the left guide in each platoon will mark time: the platoons will wheel to the left, conforming to the principles of the wheel on a fixed pivot. When the right of the platoons shall arrive near the line of battle, the instructor will command:

3. *Forward.* 4. MARCH. 5. *Guide right* (or *left.*)

At the fourth command, given at the instant the wheel is completed, all the men of the company will move off together with the step of twenty-eight inches; the captain, the chief of the second

platoon, the covering sergeant, and the left guide, will take their positions as in line of battle.

At the fifth command, which will be given immediately after the fourth, the captain and covering sergeant, if not already there, will move briskly to the side on which the guide is designated. The non-commissioned officer charged with the direction will move rapidly in front of the guide, and will be assured in his line of march by the instructor. That non-commissioned officer will immediately take points on the ground. The men will take the touch of elbows to the side of the guide, conforming themselves to the principles of the march in line.

The same principles are applicable to a column left in front.

A company marching to the front to break it into platoons, and to re-form the company.

249. The company marching in the cadenced step, and supposed to make part of a column, right in front, in which case the guide is left, when the instructor shall wish to cause it to break by platoon, he will give the order to the captain, who will command:

1. *Break into platoons,*

and immediately place himself before the centre of the first platoon.

At the command *break into platoons*, the first lieutenant will pass quickly around the left to the centre of his platoon, and give the caution: *Mark time.*

The captain will then command:

2. *March.*

(Fig. 52). The first platoon will continue to march straight forward; the covering sergeant will move rapidly to the left flank of this platoon (passing by the front rank) as soon as the flank shall be disengaged.

At the command *march*, given by the captain, the second platoon will begin to mark time; its chief will immediately add:

1. *Right oblique.* 2. MARCH.

The last command will be given so that this platoon may com-

mence obliquing the instant the rear rank of the first platoon shall have passed. The men will shorten the step in obliquing, so that when the command *forward march* is given, the platoon may have its exact distance.

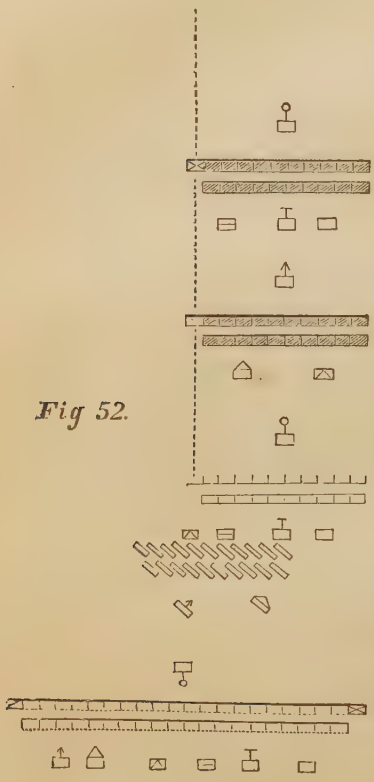


Fig 52.

The guide of the second platoon being near the direction of the guide of the first, the chief of the second will command *Forward,* and add MARCH, the instant that the guide of his platoon shall cover the guide of the first.

In a column, left in front, the company will break into platoons by inverse means, applying to the first platoon all that has been prescribed for the second, and reciprocally.

In this case, the left guide of the company will shift to the right flank of the second platoon, and the covering sergeant will remain on the right of the first.

250. The column, by platoon, being in march, right in front, when the instructor shall wish to cause it to form company, he will give the order to the captain, who will command:

Form company.

Having given this command, the captain will immediately add:

1. *First platoon.* 2. *Right oblique.*

The chief of the second platoon will caution it to continue to march straight forward.

The captain will then command:

3. MARCH.

At this command, repeated by the chief of the second, the first platoon will oblique to the right, in order to unmask the second; the covering sergeant, on the left of the first platoon, will return to the right of the company, passing by the front rank.

When the first platoon shall have nearly unmasked the second, the captain will command:

1. *Mark time,*

and at the instant the unmasking shall be complete, he will add:

2. MARCH.

The first platoon will then cease to oblique, and mark time.

In the mean time the second platoon will have continued to march straight forward, and when it shall be nearly up with the first, the captain will command *Forward,* and at the instant the two platoons shall unite, add MARCH; the first platoon will then cease to mark time.

In a column, left in front, the same movement will be executed by inverse means, the chief of the second platoon giving the command *Forward,* and the captain adding the command MARCH, when the platoons are united.

The guide of the second platoon, on its right, will pass to its left flank the moment the platoon begins to oblique; the guide of the first, on its right, remaining on that flank of the platoon.

The instructor will also sometimes cause the company to break and re-form, by platoon, by his own direct commands. In this case, he will give the general commands prescribed for the captain above:

1. *Break into platoons.* 2. MARCH.

and,

1. *Form company.* 2. MARCH.

If, in breaking the company into platoons, the subdivision that breaks off should mark time too long, it might, in a column of many

subdivisions, arrest the march of the following one, which would cause a lengthening of the column, and a loss of distances.

Being in column, to break files to the rear, and to cause them to re-enter into line.

251. The company being in march, and supposed to constitute a subdivision of a column, right (or left) in front, when the instructor shall wish to cause files to break off he will give the order to the captain, who will immediately turn to his company, and command:

1. *Two files from left* (or *right*) *to rear.* 2. MARCH.

(Fig. 53.) At the command *march*, the two files on the left (or right) of the company will mark time, the others will continue to march straight forward; the two rear rank men of these files will, as soon as the rear rank of the company shall clear them, move to the right by advancing the outer shoulder; the odd number will place himself behind the third file from that flank, the even number behind the fourth, passing for this purpose behind the odd number; the two front rank men will, in like manner, move to the right when the rear rank of the company shall clear them, the odd number will place himself behind the first file, the even number behind the second file, passing for this purpose behind the odd number. If the files are broken from the right, the men will move to the left, advancing the outer shoulder, the even number of the rear rank will place himself behind the third file, the odd number of the same rank behind the fourth; the even number of the front rank behind the first file, the odd number of the same rank behind the second, the odd numbers for this purpose passing behind the even numbers. The men will be careful not to lose their distances, and to keep aligned.

If the instructor should still wish to break two files from the same side, he will give the order to the captain, who will proceed as above directed.

At the command *march*, given by the captain, the files already broken, advancing a little the outer shoulder, will gain the space of two files to the right, if the files are broken from the left, and

to the left, if the files are broken from the right, shortening, at the same time, the step, in order to make room between themselves and

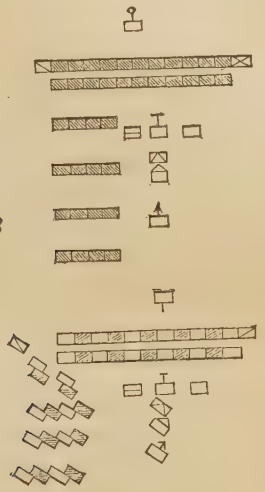


Fig 53

the rear rank of the company for the files last ordered to the rear; the latter will break by the same commands and in the same manner as the first. The men who double should increase the length of the step in order to prevent distances from being lost.

The instructor may thus diminish the front of a company by breaking off successive groups of two files, but the new files must always be broken from the same side.

The instructor, wishing to cause files broken off to return into line, will give the order to the captain, who will immediately command:

1. *Two files into line.* 2. MARCH.

At the command *march*, the first two files of those marching by the flank will return briskly into line, and the others will gain the space of two files by advancing the inner shoulder towards the flank to which they belong.

The captain will turn to his company, to watch the observance of the principles which have just been prescribed.

The instructor having caused groups of two files to break one after another, and to return again into line, will afterwards cause two or three groups to break together, and for this purpose, will command: *Four or six files from left* (or *right*) *to rear;* MARCH. The files designated will mark time; each rank will advance a little the outer shoulder as soon as the rear rank of the company shall clear it, will oblique at once, and each group will place itself behind the four neighboring files, and in the same manner, as if the movement had been executed group by group, taking care that the distances are preserved.

The instructor will next order the captain to cause two or three groups to be brought into line at once, who turning to the company, will command:

Four or six files into line — MARCH.

At the command *march*, the files designated will advance the inner shoulder, move up and form on the flank of the company by the shortest lines.

As often as files shall break off to the rear, the guide on that flank will gradually close on the nearest front rank man remaining in line, and he will also open out to make room for files ordered into line.

The files which march in the rear are disposed in the following order: the left files as if the company was marching by the right flank, and the right files as if the company was marching by the left flank. Consequently, whenever there is on the right or left of a subdivision, a file which does not belong to a group, it will be broken singly.

It is necessary to the preservation of distances in column that the men should be habituated in the schools of detail to execute the movements of this article with precision.

If new files broken off do not step well to the left or right in obliquing; if, when files are ordered into line, they do not move up with promptitude and precision, in either case the following files will be arrested in their march, and thereby cause the column to be lengthened out.

The instructor will place himself on the flank from which the files are broken, to assure himself of the exact observance of the principles.

Files will only be broken off from the side of direction, in order that the whole company may easily pass from the front to the flank march.

To march the column in route, and to execute the movements incident thereto.

252. The swiftness of the route step will be 110 steps in a minute; this swiftness will be habitually maintained in column in route, when the roads and ground may permit.

The company being at a halt, and supposed to constitute a subdivision of a column, when the instructor shall wish to cause it to march in the route step, he will command:

1. *Column, forward.* 2. *Guide, left* (or *right*). 3. *Route step.* 4. MARCH.

At the command *march*, repeated by the captain, the two ranks will step off together; the rear rank will take, in marching, by shortening a few steps, a distance of one pace (twenty-eight inches) from the rank preceding, which distance will be computed from the breasts of the men in the rear rank, to the knapsacks of the men in the front rank. The men, without further command, will immediately carry their arms *at will*, as indicated in the school of the soldier. They will no longer be required to march in the cadenced pace, or with the same foot, or to remain silent. The files will march at ease; but care will be taken to prevent the ranks from intermixing, the front rank from getting in advance of the guide, and the rear rank from opening to too great a distance.

The company marching in the route step, the instructor will cause it to change direction, which will be executed without formal commands, on a simple caution from the captain; the rear rank will come up to change direction in the same manner as the front rank. Each rank will conform itself, although in the route step, to the principles which have been prescribed for the change in closed

ranks, with this difference only; that the pivot man, instead of taking steps of nine, will take steps of fourteen inches, in order to clear the wheeling point.

The company marching in the route step, to cause it to pass to the cadenced step, the instructor will first order pieces to be brought to the shoulder, and then command:

1. *Quick time.* 2. MARCH.

At the command *march*, the men will resume the cadenced step, and will close so as to leave a distance of sixteen inches between each rank.

253. The company marching in the cadenced pace, the instructor, to cause it to take the route step will command:

1. *Route step.* 2. MARCH.

At the command *march*, the front rank will continue the step of twenty-eight inches, the rear rank will take, by gradually shortening the step, the distance of twenty-eight inches from the front rank: the men will carry their arms at will.

The instructor will exercise the company in increasing and diminishing front, by platoon, which will be executed by the same commands, and the same means, as if the company were marching in the cadenced step. When the company breaks into platoons, the chief of each will move to the flank of his platoon, and will take the place of the guide, who will step back into the rear rank.

254. The company being in column, by platoon, and marching in the route step, the instructor can cause the front to be diminished and increased, by section, if the platoons have a front of twelve files or more.

The movements of diminishing and increasing front, by section, will be executed according to the principles indicated for the same movement by platoon. The right sections of platoons will be commanded by the captain and first lieutenant, respectively; the left sections, by the two next subalterns in rank, or, in their absence, by sergeants.

The instructor wishing to diminish by section, will give the order to the captain, who will command:

1. *Break into sections.* 2. MARCH.

As soon as the platoons shall be broken, each chief of section will place himself on its directing flank in the front rank, the guides who will be thus displaced, will fall back into the rear rank: the file-closers will close up to within one pace of this rank.

Platoons will be broken into sections only in the column in route, the movement will never be executed in the manœuvres, whatever may be the front of the company.

When the instructor shall wish to re-form platoons, he will give the order to the captain, who will command:

1. *Form platoons.* 2. MARCH.

At the first command, each chief of section will place himself before its centre, and the guides will pass into the front rank. At the command *march*, the movement will be executed as has been prescribed for forming company. The moment the platoons are formed, the chiefs of the left sections will return to their places as file-closers.

The instructor will also cause to be executed the diminishing and increasing front by files, as prescribed in the preceding article, and in the same manner, as if marching in the cadenced step. When the company is broken into sections, the subdivisions must not be reduced to a front of less than six files, not counting the chief of the section.

The company being broken by platoon, or by section, the instructor will cause it, marching in the route step, to march by the flank in the same direction, by the commands and the means indicated. The moment the subdivisions shall face to the right (or left), the first file of each will wheel to the left (or right), in marching, to prolong the direction, and to unite with the rear file of the subdivision immediately preceding. The file-closers will take their habitual places in the march by the flank, before the union of the subdivisions.

255. If the company be marching by the right flank, and the

instructor should wish to undouble the files, which might sometimes be found necessary, he will inform the captain, who, after causing the cadenced step to be resumed, and arms to be shouldered or supported, will command:

1. *In two ranks, undouble files.* 2. MARCH.

At the second command, the odd numbers will continue to march straight forward, the even numbers will shorten the step, and obliquing to the left will place themselves promptly behind the odd numbers; the rear rank will gain a step to the left so as to re-take the touch of elbows on the side of the front rank.

If the company be marching by the left flank, it will be the even numbers who will continue to march forward, and the odd numbers who will undouble.

If the instructor should wish to double the files, he will give the order to the captain, who will command:

1. *In four ranks, double files.* 2. MARCH.

At the command *march*, the files will double in the manner as explained, when the company faces by the right or the left flank. The instructor will afterwards cause the route step to be resumed.

The various movements prescribed in this lesson may be executed in double quick time. The men will be brought, by degrees, to pass over at this gait about 1100 yards in seven minutes.

When the company marching in the route step shall halt, the rear rank will close up at the command *halt*, and the whole will shoulder arms.

Marching in the route step, the men will be permitted to carry their pieces in the manner they shall find most convenient, paying attention only to holding the muzzles up, so as to avoid accidents.

Countermarch.

256. The company being at a halt, and supposed to constitute a part of a column, right in front, when the instructor shall wish to cause it to countermarch, he will command:

1. *Countermarch.* 2. *Company, right* — FACE. 3. *By file left.* 4. MARCH.

(Fig. 54.) At the second command, the company will face to the right, the two guides to the right about; the captain will go to the right of his company and cause two files to break to the rear, and

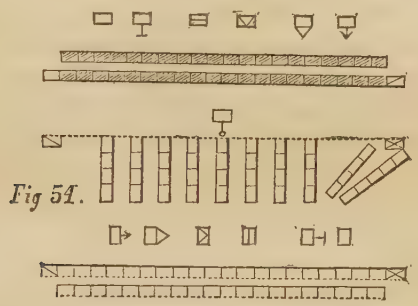


Fig 54.

then place himself by the side of the front rank man, to conduct him.

At the command *march,* both guides will stand fast; the company will step off smartly; the first file, conducted by the captain, will wheel around the right guide, and direct its march along the front rank so as to arrive behind, and two paces from the left guide; each file will come in succession to wheel on the same ground around the right guide; the leading file having arrived at a point opposite to the left guide, the captain will command:

1. *Company.* 2. HALT. 3. FRONT. 4. *Right* — DRESS.

The first command will be given at *four* paces from the point where the leading file is to rest.

At the second command, the company will halt.

At the third, it will face to the front.

At the fourth, the company will dress by the right; the captain will step two paces outside of the left guide, now on the right, and direct the alignment, so that the front rank may be enclosed between the two guides: the company being aligned, he will command FRONT, and place himself before the centre of the company as if in

column; the guides, passing along the front rank, will shift to their proper places, on the right and left of that rank.

In a column, by platoon, the countermarch will be executed by the same commands, and according to the same principles; the guide of each platoon will face about, and its chief will place himself by the side of the file on the right, to conduct it.

In a column, left in front, the countermarch will be executed by inverse commands and means, but according to the same principles Thus, the movement will be made by the right flank of subdivisions, if the right be in front, and by the left flank, if the left be in front; in both cases the subdivisions will wheel by file to the side of the front rank.

Being in column by platoon, to form on the right (or *left*) *into line of battle.*

257. The column by platoon, right in front, being in march, the instructor wishing to form it on the right into line of battle, will command:

1. *On the right into line.* 2. *Guide right.*

(Fig. 55.) At the second command, the guide of each platoon will shift quickly to its right flank, and the men will touch elbows to the right; the column will continue to march straight forward.

The instructor having given the second command, will move briskly to the point at which the right of the company ought to rest in line, and place himself facing the point of direction to the left which he will choose.

The line of battle ought to be so chosen that the guide of each platoon, after having turned to the right, may have at least ten paces to take before arriving upon that line.

The head of the column being nearly opposite to the instructor, the chief of the first platoon will command; 1. *Right turn;* and when exactly opposite to that point, he will add:

2. MARCH.

At the command *march*, the first platoon will turn to the right, in conformity with the principles prescribed in the school of the soldier. Its guide will so direct his march as to bring the front

rank man next on his left, opposite to the instructor: the chief of the platoon will march before its centre; and when its guide shall be near the line of battle, he will command:

1. *Platoon.* 2. HALT.

At the command *halt*, which will be given at the instant the right of the platoon shall arrive at the distance of three paces from the line of battle, the platoon will halt; the files not yet in line will come up promptly. The guide will throw himself on the line of battle, opposite to one of the three left files of his platoon; he will face to the instructor, who will align him on the point of direction to the left. The chief of platoon having, at the same time, gone to the point where the right of the company is to rest, will, as soon as he sees all the files of the platoon in line, command:

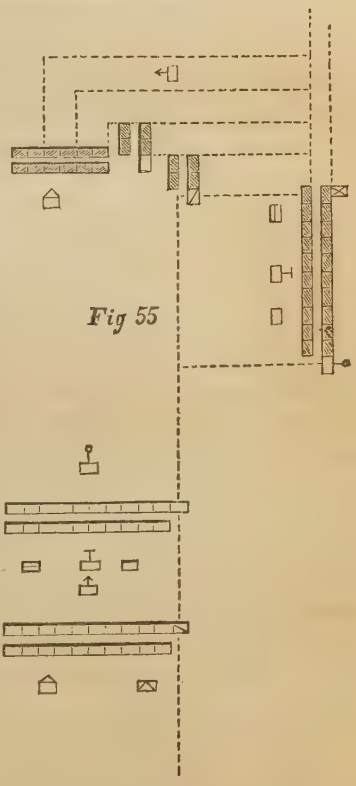


Fig 55

Right — DRESS.

At this, the first platoon will align itself; the front rank man, who finds himself opposite to the guide, will rest his breast lightly against the right arm of this guide, and the chief of the platoon, from the right, will direct the alignment on this man.

The second platoon will continue to march straight forward, until its guide shall arrive opposite to the left file of the first; it will then turn to the right at the

command of its chief, and march towards the line of battle, its guide directing himself on the left file of the first platoon.

The guide having arrived at the distance of three paces from the line of battle, this platoon will be halted, as prescribed for the first; at the instant it halts, its guide will spring on the line of battle, opposite to one of the three left files of his platoon, and will be assured in his position by the instructor.

The chief of the second platoon, seeing all its files in line, and its guide established on the direction, will command:

Right — DRESS.

Having given this command, he will return to his place as a file-closer, passing around the left; the second platoon will dress up on the alignment of the first, and, when established, the captain will command:

FRONT.

The movement ended, the instructor will command:

Guides — POSTS.

At this command, the two guides will return to their places in line of battle.

A column by platoon, left in front, will form on the left into line of battle, according to the same principles, and, by inverse means, applying to the second platoon what is prescribed for the first, and reciprocally. The chief of the second platoon having aligned it, from the point of *appui* (the left), will retire to his place as a file-closer. The captain having halted the first platoon three paces behind the line of battle, will go to the same point to align this platoon, and then command: FRONT. At the command, *guides — posts*, given by the instructor, the captain will shift to his proper flank, and the guides take their places in the line of battle.

Formation of a company from two ranks into four, and reciprocally, at a halt, and in march.

258. The company being formed in two ranks, at a halt, and supposed to form part of a column right in front, when the instructor shall wish to form it into four ranks, he will command:

1. *In four ranks, form company.* 2. *Company left* — FACE. 3. MARCH (or *double quick* — MARCH).

At the second command, the left guide will remain faced to the front, the company will face to the left: the rear rank will gain the distance of one pace from the front rank by a side step to the left and rear, and the men will form into four ranks as prescribed in the school of the soldier.

At the command *march*, the first file of four men will reface to the front without undoubling. All the other files of four will step off, and closing successively to about five inches of the preceding file, will halt, and immediately face to the front, the men remaining doubled.

The file-closers will take their new places in line of battle, at two paces in rear of the fourth rank.

The captain will superintend the movement.

259. The company being in four ranks, when the instructor shall wish to form it into two ranks, he will command:

1. *In two ranks, form company.* 2. *Company right* — FACE. 3. MARCH (or *double quick* — MARCH).

At the second command the left guide will stand fast, the company will face to the right.

At the command *march*, the right guide will step off and march in the prolongation of the front rank. The leading file of four men will step off at the same time, the other files standing fast; the second file will step off when there shall be between it and the first space sufficient to form it into two ranks. The following files will execute successively what has been prescribed for the second. As soon as the last file shall have its distance, the instructor will command:

1. *Company.* 2. HALT. 3. FRONT.

At the command *front*, the company will face to the front, and the files will undouble.

260. The company being formed in two ranks, and marching to the front, when the instructor shall wish to form it into four ranks, he will command:

1. *In four ranks, form company.* 2. *By the left, double files.* 3. MARCH (or *double quick* — MARCH).

At the command *march,* the left guide and the left file of the company will continue to march straight to the front: the company will make a half face to the left, the odd numbers placing themselves behind the even numbers. The even numbers of the rear rank will shorten their steps a little, to permit the odd numbers of the front rank to get between them and the even numbers of that rank. The files thus formed of fours, except the left file, will continue to march obliquely, lengthening their steps slightly, so as to keep constantly abreast of the guide; each file will close successively on the file next on its left, and when at the proper distance from that file, will face to the front by a half face to the right, and take the touch of elbows to the left.

261. The company being in march to the front in four ranks, when the instructor shall wish to form it into two ranks, he will command:

1. *In two ranks, form company.* 2. *By the right, undouble files.* 3. MARCH (or *double quick* — MARCH).

At the command *march,* the left guide and the left file of the company will continue to march straight to the front; the company will make a half face to the right and march obliquely, lengthening the step a little, in order to keep, as near as possible, abreast of the guide. As soon as the second file from the left shall have gained to the right the interval necessary for the left file to form into two ranks, the second file will face to the front by a half face to the left and march straight forward; the left file will immediately form into two ranks, and take the touch of elbows to the left. Each file will execute successively what has just been prescribed for the file next to the left, and each will form into two ranks when the file next on its right has obliqued the required distance and faced to the front.

If the company be supposed to make part of a column, left in front, these different movements will be executed according to the same principles and by inverse means, substituting the indication *left* for *right.*

INSTRUCTION FOR SKIRMISHERS.

General principles and division of the instruction.

262. The movements of skirmishers should be subjected to such rules as will give to the commander the means of moving them in any direction with the greatest promptitude.

It is not expected that these movements should be executed with the same precision as in closed ranks, nor is it desirable, as such exactness would materially interfere with their prompt execution.

When skirmishers are thrown out to clear the way for, and to protect the advance of, the main corps, their movements should be so regulated by this corps, as to keep it constantly covered.

Every body of skirmishers should have a reserve, the strength and composition of which will vary according to circumstances.

If the body thrown out be within sustaining distance of the main corps, a very small reserve will be sufficient for each company, whose duty it shall be to fill vacant places, furnish the line with cartridges, relieve the fatigued, and serve as a rallying point for the skirmishers.

If the main corps be at a considerable distance, besides the company reserves, another reserve will be required, composed of entire companies, which will be employed to sustain and reinforce such parts of the line as may be warmly attacked; this reserve should be strong enough to relieve at least half the companies deployed as skirmishers.

The movements of skirmishers will be executed in quick, or double quick time. The run will be resorted to only in cases of urgent necessity.

Skirmishers will be permitted to carry their pieces in the manner most convenient to them.

The movements will be habitually indicated by the sounds of the bugle.

The officers, and, if necessary, the non-commissioned officers, will repeat, and cause the commands to be executed, as soon as they are given; but to avoid mistakes, when the signals are employed, they

will wait until the last bugle note is sounded before commencing the movement.

Deployments.

263. A company may be deployed as skirmishers in two ways: forward, and by the flank.

The deployment forward will be adopted when the company is behind the line on which it is to be established as skirmishers: it will be deployed by the flank, when it finds itself already on that line.

Whenever a company is to be deployed as skirmishers, it will be divided into two platoons, and each platoon will be subdivided into two sections; the comrades in battle, forming groups of four men, will be careful to know and to sustain each other. The captain will assure himself that the files in the centre of each platoon and section are designated.

The interval between skirmishers depends on the extent of ground to be covered; but in general, it is not proper that the groups of four men should be removed more than forty paces from each other. The habitual distance between men of the same group in open grounds will be five paces; in no case will they lose sight of each other.

To deploy forward.

264. A company being at a halt or in march, when the captain shall wish to deploy it forward on the left file of the first platoon, holding the second platoon in reserve, he will command:

1. *First platoon — as skirmishers.* 2. *On the left file — take intervals.* 3. MARCH (or *double quick* — MARCH).

(Fig. 56.) At the first command, the second and third lieutenants will place themselves rapidly two paces behind the centres of the right and left sections of the first platoon; the fifth sergeant will move one pace in front of the centre of the first platoon, and will place himself between the two sections in the front rank as soon as the movement begins; the fourth sergeant will place himself on the

left of the front of the same platoon, as soon as he can pass. The captain will indicate to the sergeant the point on which he wishes

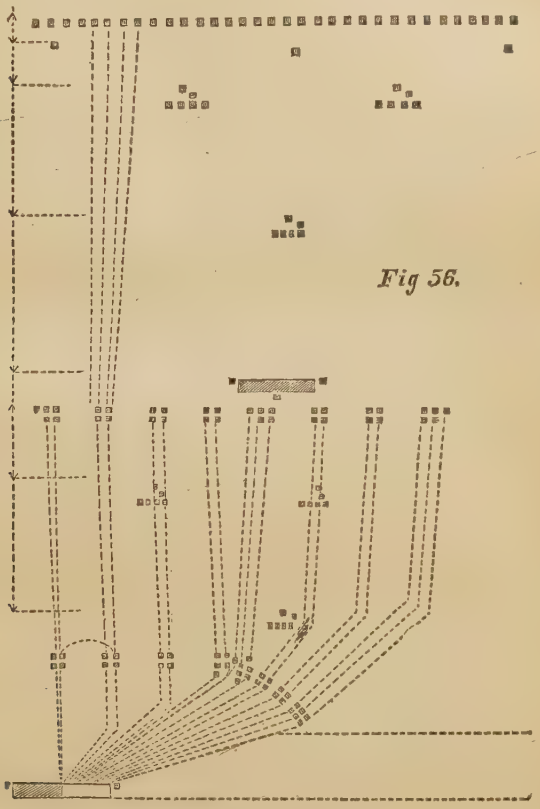


Fig 56.

him to direct his march. The first lieutenant, placing himself before the centre of the second platoon, will command:

Second platoon backward — MARCH.

At this command, the second platoon will step three paces to the rear, so as to unmask the flank of the first platoon. It will then be

halted by its chief, and the second sergeant will place himself on the left, and the third sergeant on the right flank of the platoon.

At the command *march*, the left group of four men, conducted by the fourth sergeant, will direct itself on the point indicated; all the other groups of fours throwing forward briskly the left shoulder, will move diagonally to the front in double quick time, so as to gain to the right the space of twenty paces, which shall be the distance between each group and that immediately on its left. When the second group from the left shall arrive on a line with, and twenty paces from the first, it will march straight to the front, conforming to the gait and direction of the first, keeping constantly on the same alignment and at twenty paces from it. The third group, and all the others, will conform to what has just been prescribed for the second; they will arrive successively on the line. The right guide will arrive with the last group.

The left guide having reached the point where the left of the line should rest, the captain will command the skirmishers to halt; the men composing each group of fours will then immediately deploy at five paces from each other, and to the right and left of the front rank men of the even file in each group, the rear rank men placing themselves on the left of their file leaders. If any groups be not in line at the command *halt*, they will move up rapidly, conforming to what has just been prescribed.

If, during the deployment, the line should be fired upon by the enemy, the captain may cause the groups of fours to deploy, as they gain their proper distances.

The line being formed, the non-commissioned officers on the right, left and centre of the platoon, will place themselves ten paces in rear of the line, and opposite the positions they respectively occupied. The chiefs of sections will promptly rectify any irregularities, and then place themselves twenty-five or thirty paces in rear of the centre of their sections, each having with him four men taken from the reserve, and also a bugler, who will repeat, if necessary, the signals sounded by the captain.

Skirmishers should be particularly instructed to take advantage of any cover which the ground may offer, and should lie flat on the

ground whenever such a movement is necessary to protect them from the fire of the enemy. Regularity in the alignment should yield to this important advantage.

When the movement begins, the first lieutenant will face the second platoon *about*, and march it promptly, and by the shortest line, to about 150 paces in rear of the centre of the line. He will hold it always at this distance, unless ordered to the contrary.

The reserve will conform itself to all the movements of the line. *This rule is general.*

Light troops will carry their bayonets habitually in the scabbard, and this rule applies equally to the skirmishers and the reserve; whenever bayonets are required to be fixed, a particular signal will be given. The captain will give a general superintendence to the whole deployment, and then promptly place himself about eighty paces in rear of the centre of the line. He will have with him a bugler and four men taken from the reserve.

The deployment may be made on the right or the centre of the platoon, by the same commands, substituting the indication *right* or *centre*, for that of *left* file.

The deployment on the right or the centre will be made according to the principles prescribed above; in this latter case, the centre of the platoon will be marked by the right group of fours in the second section; the fifth sergeant will place himself on the right of this group, and serve as the guide of the platoon during the deployment.

In whatever manner the deployment be made, on the right, left, or centre, the men in each group of fours will always deploy at five paces from each other, and upon the front rank man of the even numbered file. The deployments will habitually be made at twenty paces interval; but if a greater interval be required, it will be indicated in the command.

If a company be thrown out as skirmishers, so near the main body as to render a reserve unnecessary, the entire company will be extended in the same manner, and according to the same principles, as for the deployment of a platoon. In this case, the third lieutenant will command the fourth section, and a non-commissioned officer designated for that purpose, the second section; the fifth

sergeant will act as centre guide; the file-closers will place themselves ten paces in rear of the line, and opposite their places in line of battle. The first and second lieutenant will each have a bugler near him.

To deploy by the flank.

265. The company being at a halt, when the captain shall wish to deploy it by the flank, holding the first platoon in reserve, he will command:

1. *Second platoon — as skirmishers.* 2. *By the right flank — take intervals.* 3. MARCH (or *double quick* — MARCH).

(Fig. 57.) At the first command, the first and third lieutenants will place themselves, respectively, two paces behind the centres of the first and second sections of the second platoon; the fifth sergeant will place himself one pace in front of the centre of the second platoon; the third sergeant, as soon as he can pass, will place himself on the right of the front rank of the same platoon. The captain will indicate to him the point on which he wishes him to direct his march. The chief of the first platoon will execute what has been prescribed for the chief of the second platoon, No. 264. The fourth sergeant will place himself on the left flank of the reserve, the first sergeant will remain on the right flank.

At the second command, the first and third lieutenants will place themselves two paces behind the left group of their respective sections.

At the command *march*, the second platoon will face to the right, and commence the movement; the left group of fours will stand fast, but will deploy as soon as there is room on its right, conforming to what has been prescribed, No. 264; the third sergeant will place himself on the left of the right group, to conduct it; the second group will halt at twenty paces from the one on its left, the third group at twenty paces from the second, and so on to the right. As the groups halt, they will face to the enemy, and deploy as has been explained for the left group.

The chiefs of sections will pay particular attention to the succes-

sive deployments of the groups, keeping near the group about to halt, so as to rectify any errors which may be committed. When the deployment is completed, they will place themselves thirty paces

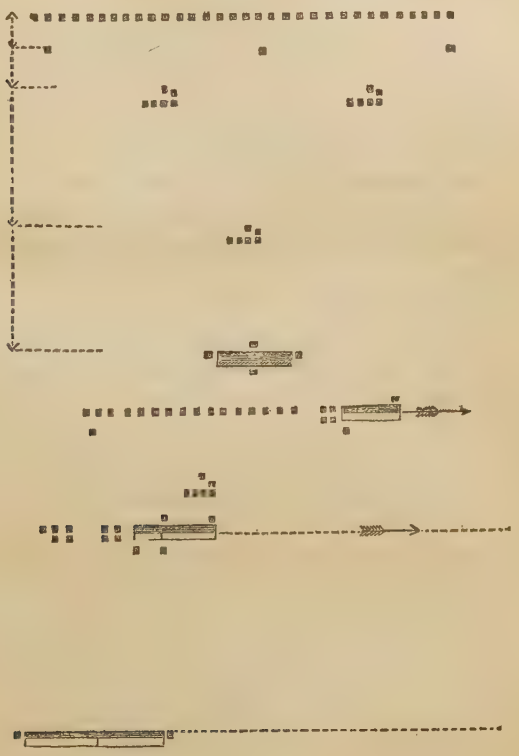


Fig 57.

in rear of the centre of their sections, as has been heretofore prescribed. The non-commissioned officers will also place themselves as previously indicated.

As soon as the movement commences, the chief of the first platoon, causing it to face about, will move it as indicated No. 264.

The deployment may be made by the left flank according to the same principles, substituting *left flank* for *right flank*.

266. If the captain should wish to deploy the company upon the centre of one of the platoons, he will command:

1. *Second platoon—as skirmishers.* 2. *By the right and left flanks — take intervals.* 3. MARCH (or *double quick* — MARCH).

At the first command, the officers and non-commissioned officers will conform to what has been prescribed No. 265.

At the second command, the first lieutenant will place himself behind the left group of the right section of the second platoon, the third lieutenant behind the right group of the left section of the same platoon.

At the command *march*, the right section will face to the right, the left section will face to the left, the group on the right of this latter section will stand fast. The two sections will move off in opposite directions; the third sergeant will place himself on the left of the right file to conduct it, the second sergeant on the right of the left file. The two groups nearest that which stands fast, will each halt at twenty paces from this group, and each of the other groups will halt at twenty paces from the group which is in rear of it. Each group will deploy as heretofore prescribed No. 264.

The first and third lieutenants will direct the movement, holding themselves always abreast of the group which is about to halt.

The captain can cause the deployment to be made on any named group whatsoever; in this case the fifth sergeant will place himself before the group indicated, and the deployment will be made according to the principles heretofore prescribed.

The entire company may be also deployed, according to the same principles.

To extend intervals.

267. This movement, which is employed to extend a line of skirmishers, will be executed according to the principles prescribed for deployments.

If it be supposed that the line of skirmishers is at a halt, and that the captain wishes to extend it to the left, he will command:

1. *By the left flank (so many paces) extend intervals.* 2. MARCH (or *double quick* — MARCH).

(Fig. 58.) At the command *march*, the group on the right will stand fast, all the other groups will face to the left, and each group will extend its interval to the prescribed distance by the means indicated No. 265.

Fig 58.

The men of the same group will continue to preserve between each other the distance of five paces, unless the nature of the ground

should render it necessary that they should close nearer, in order to keep in sight of each other. The intervals refer to the spaces between the groups, and not to the distances between the men in each group. The intervals will be taken from the right or left man of the neighboring group.

If the line of skirmishers be marching to the front, and the captain should wish to extend it to the right, he will command:

1. *On the left group (so many paces) extend intervals.* 2. MARCH (or *double quick* — MARCH).

The left group, conducted by the guide, will continue to march on the point of direction; the other groups throwing forward the left shoulder, and taking the double quick step, will open their intervals to the prescribed distance.

Intervals may be extended on the centre of this line, according to the same principles.

If, in extending intervals, it be intended that one company or platoon should occupy a line which had been previously occupied by two, the men of the company or platoon which is to retire, will fall successively to the rear as they are relieved by the extension of the intervals.

To close intervals.

268. This movement, like that of opening intervals, will be executed according to the principles prescribed for the deployments.

If the line of skirmishers be halted, and the captain should wish to close intervals to the left, he will command:

1. *By the left flank (so many paces) close intervals.* 2. MARCH (or *double quick* — MARCH).

(Fig. 59.) At the command *march*, the left group will stand fast, the other groups will face to the left and close to the prescribed distance, each group facing to the enemy as it attains its proper distance.

If the line be marching to the front, the captain will command:

1 *On the left group (so many paces) close intervals.* 2. MARCH (or *double quick* — MARCH).

Fig 59.

The left group, conducted by the guide, will continue to move on in the direction previously indicated; the other groups, advancing the right shoulder, will close to the left, until the intervals are reduced to the prescribed distance.

Intervals may be closed on the right, or on the centre, according to the same principles.

When intervals are to be closed up, in order to reinforce a line of skirmishers, so as to cause two companies to cover the ground which had been previously occupied by one, the new company will deploy so as to finish its movement at twenty paces in rear of the line it is to occupy, and the men will successively move upon that line, as they shall be unmasked by the men of the old company. The reserves of the two companies will unite behind the centre of the line.

To relieve a company deployed as skirmishers.

269. When a company of skirmishers is to be relieved, the captain will be advised of the intention, which he will immediately communicate to the first and second lieutenants.

The new company will execute its deployment forward, so as to finish the movement at about twenty paces in rear of the line.

Arrived at this distance, the men of the new company, by command of their captain, will advance rapidly a few paces beyond the old line and halt; the new line being established, the old company will assemble on its reserve, taking care not to get into groups of fours until they are beyond the fire of the enemy.

If the skirmishers to be relieved are marching in retreat, the company thrown out to relieve them will deploy by the flank, as prescribed No. 265 and following. The old skirmishers will continue to retire with order, and having passed the new line, they will form upon the reserve.

To advance.

To advance in line, and to retreat in line.

270. When a platoon or a company deployed as skirmishers is marching by the front, the guide will be habitually in the centre. No particular indication to this effect need be given in the com-

mands, but if on the contrary it be intended that the directing guide should be on the right, or left, the command *guide right*, or *guide left*, will be given immediately after that of forward.

The captain, wishing the line of skirmishers to advance, will command:

1. *Forward.* 2. MARCH (or *double quick* — MARCH).

This command will be repeated with the greatest rapidity by the chiefs of sections, and in case of need, by the sergeants. This rule is general, whether the skirmishers march by the front or by the flank.

At the first command, three sergeants will move briskly on the line, the first on the right, the second on the left, and the third in the centre.

At the command *march*, the line will move to the front, the guide charged with the direction will move on the point indicated to him, the skirmishers will hold themselves aligned on this guide, and preserve their intervals towards him.

The chiefs of sections will march immediately behind their sections, so as to direct their movements.

The captain will give a general superintendence to the movement.

When he shall wish to halt the skirmishers, he will command:

HALT.

At this command, briskly repeated, the line will halt. The chiefs of sections will promptly rectify any irregularity in the alignment and intervals, and after taking every possible advantage which the ground may offer for protecting the men, they, with the three sergeants in the line, will retire to their proper places in rear.

271. The captain, wishing to march the skirmishers in retreat, will command:

1. *In retreat.* 2. MARCH (or *double quick* — MARCH).

At the first command, the three sergeants will move on the line as prescribed No. 270.

At the command *march*, the skirmishers will face about indi-

vidually, and march to the rear, conforming to the principles prescribed No. 270.

The officers and sergeants will use every exertion to preserve order.

To halt the skirmishers, marching in retreat, the captain will command:

HALT.

At this command, the skirmishers will halt, and immediately face to the front.

The chiefs of sections and the three guides will each conform himself to what is prescribed No. 270.

To change direction.

272. If the commander of a line of skirmishers shall wish to cause it to change direction to the right, he will command:

1. *Right wheel.* 2. MARCH (or *double quick* — MARCH).

At the command *march*, the right guide will mark time in his place; the left guide will move in a circle to the right, and that he may properly regulate his movements, will occasionally cast his eyes to the right, so as to observe the direction of the line, and the nature of the ground to be passed over. The centre guide will also march in a circle to the right, and in order to conform his movements to the general direction, will take care that his steps are only half the length of the steps of the guide on the left.

The skirmishers will regulate the length of their steps by their distance from the marching flank, being less as they approach the pivot, and greater as they are removed from it; they will often look to the marching flank, so as to preserve the direction and their intervals.

When the commander of the line shall wish to resume the direct march, he will command:

1. *Forward.* 2. MARCH.

At the command *march*, the line will cease to wheel, and the skirmishers will move direct to the front; the centre guide will march on the point which will be indicated to him.

If the captain should wish to halt the line, in place of moving it to the front, he will command:

HALT.

At this command, the line will halt.

A change of direction to the left will be made according to the same principles, and by inverse means.

A line of skirmishers marching in retreat will change direction by the same means, and by the same commands, as a line marching in advance; for example, if the captain should wish to refuse his left, now become the right, he will command:

1. *Left wheel.* 2. MARCH.

At the command *halt*, the skirmishers will face to the enemy.

But if, instead of halting the line, the captain should wish to continue to march it in retreat, he will, when he judges the line has wheeled sufficiently, command:

1. *In retreat.* 2. MARCH.

To march by the flank.

273. The captain, wishing the skirmishers to march by the right flank, will command:

1. *By the right flank.* 2. MARCH (or *double quick* — MARCH).

At the first command, the three sergeants will place themselves on the line.

At the command *march*, the skirmishers will face to the right and move off; the right guide will place himself by the side of the leading man on the right to conduct him, and will march on the point indicated; each skirmisher will take care to follow exactly in the direction of the one immediately preceding him, and to preserve his distance.

The skirmishers may be marched by the left flank, according to the same principles, and by the same commands, substituting *left* for *right*; the left guide will place himself by the side of the leading man to conduct him.

If the skirmishers be marching by the flank, and the captain should wish to halt them, he will command:

HALT.

At this command, the skirmishers will halt and face to the enemy. The officers and sergeants will conform to what has been prescribed No. 270.

The reserve should execute all the movements of the line, and be held always about 150 paces from it, so as to be in position to second its operations.

When the chief of the reserve shall wish to march it in advance, he will command:

1. *Platoon forward.* 2. *Guide left.* 3. MARCH.

If he should wish to march it in retreat, he will command:

1. *In retreat.* 2. MARCH. 3. *Guide right.*

At the command *halt*, it will re-face to the enemy.

The men should be made to understand that the signals or commands, such as *forward*, mean that the skirmishers shall march on the enemy; *in retreat*, that they shall retire, and to *the right or left flank*, that the men must face to the right or left, whatever may be their position.

If the skirmishers be marching by the flank, and the captain should wish to change direction to the right (or left), he will command:

1. *By file right* (or *left*). 2. MARCH.

These movements will also be executed by the signals No. 262.

THE FIRINGS.

274. Skirmishers will fire either at a halt or marching.

To fire at a halt.

To cause this fire to be executed, the captain will command:

Commence — FIRING

At this command, briskly repeated, the men of the front rank will commence firing; they will reload rapidly, and hold themselves in readiness to fire again. During this time the men of the rear rank will come to a ready, and as soon as their respective file leaders have loaded, they will also fire and reload. The men of each file will thus continue the firing, conforming to this principle, that th one or the other shall always have his piece loaded.

Light troops should be always calm, so as to aim with accuracy; they should, moreover, endeavor to estimate correctly the distances between themselves and the enemy to be hit, and thus be enabled to deliver their fire with the greater certainty of success.

Skirmishers will not remain in the same place whilst reloading, unless protected by accidents in the ground.

To fire marching.

275. This fire will be executed by the same commands as the fire at a halt.

At the command *commence firing*, if the line be advancing, the front rank man of every file will halt, fire, and reload before throwing himself forward. The rear rank man of the same file will continue to march, and after passing ten or twelve paces beyond his front rank man will halt, come to a ready, select his object, and fire when his front rank man has loaded; the fire will thus continue to be executed by each file; the skirmishers will keep united, and endeavor, as much as possible, to preserve the general direction of the alignment.

If the line be marching in retreat, at the command *commence firing*, the front rank man of every file will halt, face to the enemy, fire, and then reload whilst moving to the rear; the rear rank man of the same file will continue to march, and halt ten or twelve paces beyond his front rank man, face about, come to a ready, and fire, when his front rank man has passed him in retreat and loaded; after which, he will move to the rear and reload; the front rank man in his turn, after marching briskly to the rear, will halt at ten or twelve paces from the rear rank, face to the enemy, load his piece and fire,

conforming to what has just been prescribed; the firing will thus be continued.

If the company be marching by the right flank, at the command, *commence firing*, the front rank man of every file will face to the enemy, step one pace forward, halt, and fire; the rear rank man will continue to move forward. As soon as the front rank man has fired, he will place himself briskly behind his rear rank man and reload whilst marching. When he has loaded, the rear rank man will, in his turn, step one pace forward, halt, and fire, and returning to the ranks, will place himself behind his front rank man; the latter, in his turn, will act in the same manner, observing the same principles. At the command, *cease firing*, the men of the rear rank will retake their original positions, if not already there.

If the company be marching by the left flank, the fire will be executed according to the same principles, but in this case it will be the rear rank men who will be first.

The following rules will be observed in the cases to which they apply:

If the line be firing at a halt, or whilst marching by the flank, at the command, *Forward* — MARCH, it will be the men whose pieces are loaded, without regard to the particular rank to which they belong, who will move to the front. Those men whose pieces have been discharged, will remain in their places to load them before moving forward, and the firing will be continued agreeably to the principles prescribed above.

If the line be firing either at a halt, advancing, or whilst marching by the flank, at the command, *In retreat* — MARCH, the men whose pieces are loaded will remain faced to the enemy, and will fire in this position; the men whose pieces are discharged will retreat loading them, and the fire will be continued agreeably to the principles prescribed for the fire in marching in retreat.

If the line of skirmishers be firing either at a halt, advancing, or in retreat, at the command, *By the right* (or *left*) *flank* — MARCH, the men whose pieces are loaded will step one pace out of the general alignment, face to the enemy, and fire in this position; the men whose pieces are unloaded will face to the right (or left) and march

in the direction indicated. The men who stepped out of the ranks will place themselves, immediately after firing, upon the general direction, and in rear of their front or rear rank men, as the case may be. The fire will be continued according to the principles prescribed for firing when marching by a flank.

Skirmishers will be habituated to load their pieces whilst marching; but they will be enjoined to halt always an instant, when in the act of charging cartridge, and priming.

They should be practised to fire and load kneeling, lying down, and sitting, and much liberty should be allowed in these exercises, in order that they may be executed in the manner found to be most convenient. Skirmishers should be cautioned not to forget that, in whatever position they may load, it is important that the piece should be placed upright before ramming, in order that the entire charge of powder may reach the bottom of the bore.

In commencing the fire, the men of the same rank should not all fire at once, and the men of the same file should be particular that one or the other of them be always loaded.

In retreating, the officer commanding the skirmishers should seize on every advantage which the ground may present, for arresting the enemy as long as possible.

At the signal to *cease firing*, the captain will see that the order is promptly obeyed; but the men who may not be loaded, will load. If the line be marching, it will continue the movement; but the man of each file who happens to be in front, will wait until the man in rear shall be abreast with him.

If a line of skirmishers be firing advancing, at the command *halt*, the line will re-form upon the skirmishers who are in front; when the line is retreating, upon the skirmishers who are in rear.

276. Officers should watch with the greatest possible vigilance over a line of skirmishers; in battle, they should neither carry a rifle or fowling piece. In all the firings, they, as well as the sergeants, should see that order and silence are preserved, and that the skirmishers do not wander imprudently; they should especially caution them to be calm and collected; not to fire until they distinctly perceive the objects at which they aim, and are sure that

those objects are within proper range. Skirmishers should take advantage promptly, and with intelligence, of all shelter, and of all accidents of the ground, to conceal themselves from the view of the enemy, and to protect themselves from his fire. It may often happen, that intervals are momentarily lost when several men near each other find a common shelter; but when they quit this position, they should immediately resume their intervals and their places in line, so that they may not, by crowding, needlessly expose themselves to the fire of the enemy.

THE RALLY.

To form column.

277. A company deployed as skirmishers, is rallied in order to oppose the enemy with better success; the rallies are made at a run, and with bayonets fixed; when ordered to rally, the skirmishers fix bayonets without command.

There are several ways of rallying, which the chief of the line will adopt according to circumstances.

If the line, marching or at a halt, be merely disturbed by scattered horsemen, it will not be necessary to fall back on the reserve, but the captain will cause bayonets to be fixed. If the horsemen should, however, advance to charge the skirmishers, the captain will command, *rally by fours.* The line will halt if marching, and the four men of each group will execute this rally in the following manner: the front rank man of the even numbered file will take the position of *guard against cavalry;* the rear rank man of the odd numbered file will also take the position of *guard against cavalry,* turning his back to him, his right foot thirteen inches from the right foot of the former, and parallel to it; the front rank man of the odd file, and the rear rank man of the even file, will also place themselves back to back, taking a like position, and between the two men already established, facing to the right and left; the right feet of the four men will be brought together, forming a square, and serving for mutual support. The four men in each group will come to a ready, fire as occasion may offer, and load without moving their feet. (Fig. 60.)

The captain and chiefs of sections will each cause the four men who constitute his guard to form square, the men separating so as to enable him and the bugler to place themselves in the centre.

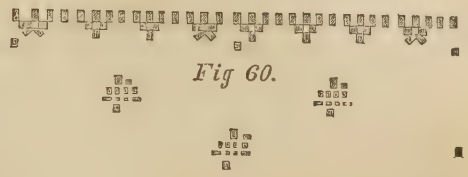


Fig 60.

Fig 61.

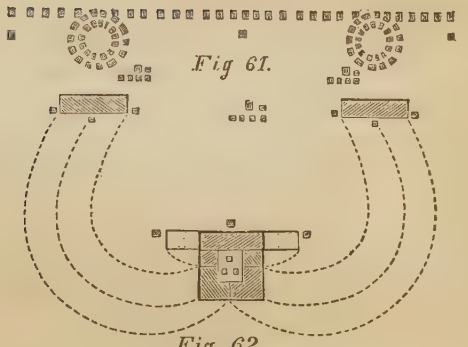


Fig 62.

The three sergeants will each promptly place himself in the group nearest him in the line of skirmishers.

Whenever the captain shall judge these squares too weak, but should wish to hold his position by strengthening his line, he will command:

Rally by sections.

278. At this command, the chiefs of sections will move rapidly on the centre group of their respective sections, or on any other interior group whose position might offer a shelter, or other particular advantage; the skirmishers will collect rapidly at a run on this group, and without distinction of numbers. The men composing the group on which the formation is made, will immediately form square, as

heretofore explained, and elevate their pieces, the bayonets uppermost, in order to indicate the point on which the rally is to be made. The other skirmishers, as they arrive, will occupy and fill the open angular spaces between these four men, and successively rally around this first nucleus, and in such manner as to form rapidly a compact circle. The skirmishers will take as they arrive, the position of charge bayonet, the point of the bayonet more elevated, and will cock their pieces in this position. The movement concluded, the two exterior ranks will fire as occasion may offer, and load without moving their feet. (Fig. 61.)

The captain will move rapidly with his guard, wherever he may judge his presence most necessary.

The officers and sergeants will be particular to observe that the rally is made in silence, and with promptitude and order; that some pieces in each of their subdivisions be at all times loaded, and that the fire is directed on those points only where it will be most effective.

If the reserve should be threatened, it will form into a circle around its chief.

If the captain, or commander of a line of skirmishers formed of many platoons, should judge that the rally by section does not offer sufficient resistance, he will cause the rally by platoons to be executed, and for this purpose, will command:

Rally by platoons.

279. This movement will be executed according to the same principles, and by the same means, as the rally by sections. The chiefs of platoon will conform to what has been prescribed for the chiefs of section.

The captain wishing to rally the skirmishers on the reserve, will command:

Rally on the reserve.

280. At this command, the captain will move briskly on the reserve; the officer who commands it will take immediate steps to form square; for this purpose, he will cause the half sections on the flanks to be thrown perpendicularly to the rear; he will order the men to come to a ready.

The skirmishers of each section, taking the run, will form rapidly into groups, and upon that man of each group who is nearest the centre of the section. These groups will direct themselves diagonally towards each other, and in such manner as to form into sections with the greatest possible rapidity while moving to the rear; the officers and sergeants will see that this formation is made in proper order, and the chiefs will direct their sections upon the reserve, taking care to unmask it to the right and left. As the skirmishers arrive, they will continue and complete the formation of the square begun by the reserve, closing in rapidly upon the latter, without regard to their places in line; they will come to a ready without command, and fire upon the enemy; which will also be done by the reserve as soon as it is unmasked by the skirmishers. (Fig. 62.)

If a section should be closely pressed by cavalry while retreating its chief will command *halt;* at this command, the men will form rapidly into a compact circle around the officer, who will re-form his section and resume the march, the moment he can do so with safety.

The formation of the square in a prompt and efficient manner, requires coolness and activity on the part of both officers and sergeants.

The captain will also profit by every moment of respite which the enemy's cavalry may leave him; as soon as he can, he will endeavor to place himself beyond the reach of their charges, either by gaining a position where he may defend himself with advantage, or by returning to the corps to which he belongs. For this purpose, being in square, he will cause the company to break into column by platoons at half distance; to this effect, he will command:

1. *Form column.* 2. MARCH.

At the command *march,* each platoon will dress on its centre, and the platoon which was facing to the rear will face about without command. The guides will place themselves on the right and left of their respective platoons, those of the second platoon will place themselves at half distance from those of the first, counting from

the rear rank. These dispositions being made, the captain can move the column in whatever direction he may judge proper.

If he wishes to march it in retreat, he will command:

1. *In retreat.* 2. MARCH (or *double quick* — MARCH).

At the command *march*, the column will immediately face by the rear rank, and move off in the opposite direction. As soon as the column is in motion, the captain will command:

3. *Guide right* (or *left*).

He will indicate the direction to the leading guide; the guides will march at their proper distances, and the men will keep aligned.

If again threatened by cavalry, the captain will command:

1. *Form square.* 2. MARCH.

At the command *march*, the column will halt; the first platoon will face about briskly, and the outer half sections of each platoon will be thrown perpendicularly to the rear, so as to form the second and third fronts of the square. The officers and sergeants will promptly rectify any irregularities which may be committed.

If he should wish to march the column in advance, the captain will command:

1. *Form column.* 2. MARCH.

Which will be executed as prescribed above.

The column being formed, the captain will command:

1. *Forward.* 2. MARCH (or *double quick* — MARCH). 3. *Guide left* (or *right*).

At the second command, the column will move forward, and at the third command, the men will take the touch of elbows to the side of the guide.

If the captain should wish the column to gain ground to the right or left, he will do so by rapid wheels to the side opposite the guide, and for this purpose, will change the guide whenever it may be necessary.

281. If a company be in column by platoon, at half distance, right in front, the captain can deploy the first platoon as skirmishers

by the means already explained; but if it should be his wish to deploy the second platoon forward on the centre file, leaving the first platoon in reserve, he will command:

1. *Second platoon — as skirmishers.* 2. *On the centre file — take intervals.* 3. MARCH (or *double quick* — MARCH.)

At the first command, the chief of the first platoon will caution his platoon to stand fast; the chiefs of sections of the second platoon will place themselves before the centre of their sections; the fifth sergeant will place himself one pace in front of the centre of the second platoon.

At the second command, the chief of the right section, second platoon, will command: *Section right face;* the chief of the left section: *Section left face.*

At the command *march,* these sections will move off briskly in opposite directions, and having unmasked the first platoon, the chiefs of sections will respectively command: *By the left flank*—MARCH, and *By the right flank* — MARCH; and as soon as these sections arrive on the alignment of the first platoon, they will command: *As skirmishers* — MARCH. The groups will then deploy according to prescribed principles, on the right group of the left section, which will be directed by the fifth sergeant on the point indicated.

If the captain should wish the deployment made by the flank, the second platoon will be moved to the front by the means above stated, and halted after passing some steps beyond the alignment of the first platoon; the deployment will then be made by the flank according to the principles prescribed.

When one or more platoons are deployed as skirmishers, and the captain should wish to rally them on the battalion, he will command:

Rally on the battalion.

282. At this command, the skirmishers and the reserve, no matter what position the company to which they belong may occupy in order of battle, will rapidly unmask the front of the battalion, directing themselves in a run towards its nearest flank, and then form in its rear.

As soon as the skirmishers have passed beyond the line of file-closers, the men will take the quick step, and the chief of each platoon or section will re-form his subdivision, and place it in column behind the wing on which it is rallied, and at ten paces from the rank of file-closers. These subdivisions will not be moved except by order of the commander of the battalion, who may, if he thinks proper, throw them into line of battle at the extremities of the line, or in the intervals between the battalions.

If many platoons should be united behind the same wing of a battalion, or behind any shelter whatsoever, they should be formed always into close column, or into column at half distance.

When the battalion, covered by a company of skirmishers, shall be formed into square, the platoons and sections of the covering company will be directed by their chiefs to the rear of the square, which will be opened at the angles to receive the skirmishers, who will be then formed into close column by platoons in rear of the first front of the square.

If circumstances should prevent the angles of the square from being opened, the skirmishers will throw themselves at the feet of the front rank men, the right knee on the ground, the butt of the piece resting on the thigh, the bayonet in a threatening position. A part may also place themselves about the angles, where they can render good service by defending the sectors without fire.

If the battalion on which the skirmishers are rallied be in column ready to form square, the skirmishers will be formed into close column by platoon, in rear of the centre of the third division, and at the command, *Form square*—MARCH, they will move forward and close on the buglers.

When skirmishers have been rallied by platoon or section behind the wings of a battalion, and it be wished to deploy them again to the front, they will be marched by the flank towards the intervals on the wings, and be then deployed so as to cover the front of the battalion.

When platoons or sections, placed in the interior of squares or columns, are to be deployed, they will be marched out by the flanks, and then thrown forward, as is prescribed, No. 281; as soon as they

shall have unmasked the column or square, they will be deployed, the one on the right, the other on the left file.

The assembly.

283. A company deployed as skirmishers will be assembled when there is no longer danger of its being disturbed; the assembly will be made habitually in quick time.

The captain wishing to assemble the skirmishers on the reserve, will command:

Assemble on the reserve.

At this command, the skirmishers will assemble by groups of fours; the front rank men will place themselves behind their rear rank men; and each group of fours will direct itself on the reserve, where each will take its proper place in the ranks. When the company is re-formed, it will rejoin the battalion to which it belongs.

It may be also proper to assemble the skirmishers on the centre, or on the right or left of the line, either marching or at a halt.

If the captain should wish to assemble them on the centre while marching, he will command:

Assemble on the centre.

At this command, the centre guide will continue to march directly to the front on the point indicated; the front rank man of the directing file will follow the guide, and be covered by his rear rank man; the other two comrades of this group, and likewise those on their left, will march diagonally, advancing the left shoulder and accelerating the gait, so as to re-form the groups while drawing nearer and nearer the directing file; the men of the right section will unite in the same manner into groups, and then upon the directing file, throwing forward the right shoulder. As they successively unite on the centre, the men will bring their pieces to the right shoulder.

To assemble on the right or left file will be executed according to the same principles.

The assembly of a line marching in retreat will also be executed

according to the same principles, the front rank men marching behind their rear rank men.

To assemble the line of skirmishers at a halt, and on the line they occupy, the captain will give the same commands; the skirmishers will face to the right or left, according as they should march by the right or left flank, re-form the groups while marching, and thus arrive on the file which served as the point of formation. As they successively arrive, the skirmishers will support arms.

ARTICLE V.

TARGET PRACTICE.

284. In order that fire-arms in the hands of soldiers may produce their full effect, it is necessary,

1st. That the soldier should have sufficient knowledge of the parts of his piece to enable him to take it apart and put it together again for the purpose of keeping it in order.

2d. That the soldier should know how to load his piece properly. The school of the soldier contains all that is necessary on this subject.

3d. That the rules for firing his piece should be known; that is to say, that he knows the manner of regulating his aim according to the distance of the object to be hit.

4th. That he should be practised in estimating distances within the range of his piece.

5th. That he should be able to take a position which enables him,

To aim with ease;

To keep the body steady, without constraint;

Not to incline the sights to the right or left;

To support the recoil.

6th. When pressing on the trigger to discharge the piece, not to derange his aim.

The above comprises all that is necessary for the soldier to know, and put in practice, in order that he may obtain the maximum eff[illegible] of his arm.

EXERCISE PREPARATORY TO FIRING.

285. In the exercises which constitute this lesson, the company will be divided into as many squads as there are instructors available.

When the exercise is conducted on the drill-ground, the squads will be formed in one rank, with an interval of one pace between the files, and equipped as for drill. The bayonet, as a general rule, will be in the scabbard, unless otherwise directed.

Aiming.

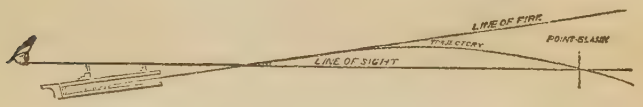
286. Instruction in aiming will be given at first in the quarters, if practicable. A bag, partially filled with sand or earth, is placed on a bench, the bench on a table: by striking the bag with the back of the hand, an indentation will be formed in which the piece can be rested. The piece is now placed on the bag, and aimed by the instructor on some object, such as a wafer on the wall, being careful that the sights incline neither to the right or left. He now points out to his squad the two points which determine the line of sight; that is, the top of the front or muzzle-sight, and the middle of the notch of the hausse or breech-sight. The instructor explains that aiming consists in bringing these two points, and the object aimed at, in the same right line.

Each man, in turn, placing himself behind the butt of the piece, without touching it, closing the left eye, looks through the middle of the notch of the breech-sight, over the top of the front sight, and on the centre of the wafer upon which the line of sight was previously directed, and satisfies himself that these three points are in the same right line. The instructor will now derange the gun, and then call up each soldier in turn, who will aim the piece at the point indicated: he will criticise the aiming, pointing out to each of them their error or errors, if any are found, by making them see that the object aimed at is not in the line of sight, but that this line passes to the right, left, above, or below, as the case may be. After having rectified the aiming of each soldier, the instructor will be careful to derange the piece. This exercise will be repeated; but, instead of the instructor rectifying errors himself, he will first call up the men of his squad in turn, and ask each if the line of sight passes to right, left, above, or below the point indicated, or whether the piece inclines to the right or left. When the men have expressed their opinions, the instructor will give his own, correcting thus all

the errors which have been committed. The instructor will repeat this exercise as often as may be necessary.

Two drills, of two hours each, devoted to the first part of the instruction in aiming, will be sufficient to teach the generality of men the principles of aiming a gun with the raised sight down.

In a third drill, the instructor will explain to his squad the use of the different parts of his piece, the rules for firing, the object and use of the raised sight, by tracing the following figure on a board, table, or floor. Explain that the line of fire is the axis of



the gun indefinitely produced, that the ball describes a curved line during its flight, that the line of sight is a right line passing through the middle of the notch of the rear sight and the top of front sight, that the point-blank is the second intersection of the trajectory, or curve, with the line of sight. Assuming the point-blank of a gun, with the hausse down, to be 200 yards, he will explain to his squad, that to hit a man in the head at 200 yards, aim at his head; at 150, at his throat; at 100, at his chest, and so on. Thus, with the assistance of a curved line, and a few simple remarks adapted to the comprehension of any man of ordinary intelligence, the squad will receive a lesson which many will find useful in practice, and but few will forget. The instructor will, from time to time during the drill, question the men, and satisfy himself that he is clearly understood. The instructor will also add, that, by the use of the hausse or raised sight, the number of points-blank are increased, and explain the reason.

The fourth, fifth, and sixth drills that follow will take place on the drill-ground, and squads will be exercised in aiming at any distance between 100 and 1000 yards, or up to that point for which the arm is sighted. Each squad is provided with a target, a bag partially filled with sand, and a tripod, formed of poles about six

feet long, tied or fastened near the top. The tripod is placed in an upright position, the sand-bag on the tripod, and the piece on the sand-bag. Each man aims his own gun. When he pronounces his piece correctly aimed, the instructor calls up the remainder of the squad in turn, who examine the piece and inform the instructor, in a low tone, how, in their opinion, the gun is sighted. He then examines the piece himself, pronounces how the gun is aimed, calls up those who answered incorrectly, and, having satisfied them of their errors, requires the man who aimed the piece to correct his mistake. Should it be desirable to economise targets, one target will answer for the different squads of the same company during this part of the drill: in that case the tripods will be placed as near together as practicable. Soldiers who have previously been thoroughly instructed in this part of the exercise, and show a knowledge of the first four drills, may be excused from the last two.

Position of a Skirmisher aiming standing.

287. When the men can aim correctly from a rest, they will be instructed in the above position.

Squads under arms will be formed in a single rank, with an interval of one pace between the files.

The instructor, facing the squad, will give the details of the position, executing the same himself as he describes them.

Aiming with sight down (when rifled musket is used).

One time and three motions.

First motion. As first motion of "charge bayonet," except that the right foot is carried fifteen inches to rear of left heel.

Second motion. Bring down the piece with the right hand to the right side, the barrel uppermost; seizing it with the left hand in rear of the hausse or breech-sight, the stock resting in the palm of this hand, the thumb extended along the stock, the left elbow close to the body, the muzzle as high as the eye. Cock the piece with the thumb of the right hand, the fingers supported against the

guard and the small of the stock; seize the piece at the small of the stock with the right hand.

Third motion. Turn in slightly the left toe, raise the piece with both hands; place the butt firmly against the shoulder, the body erect, the left elbow close to the body; shut the right eye, raise the right shoulder in order to bring the sight to the height of the right eye, the elbow raised nearly to the height of the shoulder; aim, keeping the line of sight horizontal and in the vertical plane of fire, inclining as little as possible the head to the right, the thumb of the right hand over the small of the stock, the last joint of the first finger of the right hand in front of but not touching the trigger, the remaining fingers under, and grasping the small of the stock.

Aiming with sight down (when rifle is used).

One time and three motions.

First motion. Raise the piece with the right hand; make a half-face to the right on the left heel; place the hollow of the right foot opposite to, and fifteen inches from, left heel; the feet square: seize the piece at the same time with the left hand in rear of the hausse or breech-sight, the thumb extending along the stock.

Second motion. Bring down the piece with both hands; the barrel uppermost, the left elbow close to the body, the muzzle as high as the eye. Cock the piece with the thumb of the right hand, the fingers supported against the guard and the small of the stock. Seize the piece at the small of the stock with the right hand.

Third motion. Same as that given for rifled musket.

The instructor directs each man to take the position, commencing on the right of the squad: during the instruction he will assist the soldier in supporting his arm by placing his right hand under or near the middle band. After which, the man is made to take the position without any assistance. The commands given in order to make a soldier take or abandon the positions as given above, will be:

As a skirmisher — AIM. *Cease* — AIMING.

At the first part of the last command, withdraw the finger from

in front of the trigger; at the command *aiming*, retake the position of the second motion of "Aiming with sight down;" half-cock the piece, and come to a shoulder. As the instructor proceeds with the squad, he will direct those who have been instructed to exercise themselves in taking the position, keeping it for an instant, and then abandoning it, repeating this as often as they can while the rest are being instructed. Men will be cautioned not to cock the piece when repeating the instruction. The squad will now be exercised in aiming together, keeping them in the position long enough to confirm, but not long enough to fatigue them. This drill may be conducted in the quarters. In this case the instructor will drill but one man at a time; the remainder will exercise themselves in taking and abandoning the position as he proceeds. Two drills will be given to the above exercise. One will suffice for soldiers who have been previously instructed.

During the drill, the soldier will not be required to aim at any fixed point, the object being, that he may acquire with ease the position of a soldier, "aiming as a skirmisher, standing," and the habit of readily catching with his eye the two points which determine the line of sight.

When the men are confirmed in the position described above, they will be exercised at aiming at a mark. First, with the sight down: one drill will be given to this exercise. Previous to the man's aiming, the instructor will order him to direct the line of sight below the point to be aimed at; to raise the piece slowly until the line of sight is on the point designated, preserving his aim for an instant, keeping the body and gun immovable. During the first part of this drill the men will be instructed individually.

The men will now be exercised in aiming, using the hausse for ranges for which it is graduated, and the intermediate ones.

Aiming with sight raised (when rifle musket and rifle are used).

One time and four motions.

First and Second. Same as "Aiming with sight down."

Third motion. Raise the piece slightly with both hands, at the

same time depressing the muzzle until the piece is horizontal, the left arm and stock against the body: with the thumb and first finger of the right hand regulate the hausse for the distance indicated, and seize the piece with the right hand at the small of the stock.

Fourth motion. Same as third motion, "Aiming with sight down."

Two drills will be given to this exercise: during the first drill, the men will be instructed individually, commencing with the lower sights, and then causing the hausse to be raised gradually.

The position of a soldier aiming as a skirmisher cannot always be taken exactly in the same manner, as it will be found necessary to lower the shoulder and arms in proportion as the hausse is elevated: without moving the body, or inclining the head, the soldier, by lowering the shoulder and arms, can take any line of sight from 250 to 1000 yards. This will be found a good exercise for the men. In order to aim at objects 800, 900, and 1000 yards distant, it is necessary to press the heel of the butt of the piece against the shoulder. If men have short necks, the position is constrained, and cannot be taken properly. Instructors perceiving this difficulty will exercise their judgment in requiring men to take the position above designated when firing at these long ranges.

During the second drill, squads formed on the drill-ground will be exercised in aiming together, using the different lines of sight for which the hausse is regulated. In this drill the bayonet will be fixed when aiming at distances less than 400 yards.

Position of a soldier kneeling and aiming as a skirmisher.

288. The instruction will be given without times or motions. The instructor will command:

Take the position of a skirmisher kneeling and aiming;

or,

Cease — AIMING.

The instructor will detail the position of a skirmisher kneeling and aiming, as follows. The squad is supposed to be at shouldered arms, the files one pace apart. Take the position of present arms;

then carry the right foot to the rear and to the right of the left heel, and in a position convenient for placing the right knee upon the ground in bending the left leg; place the right knee upon the ground, lower the piece, the left forearm supported upon the thigh on the same side, the right hand on the small of the stock, the butt resting on the right thigh, the left hand supporting the piece near the lower band. Move the right leg to the left, around the knee supported on the ground, until this leg is nearly perpendicular to the direction of the left foot, and thus seat himself on the right heel. Raise the piece with the right hand and support it with the left, holding it near the lower band, the left elbow resting on the left thigh near the knee. With the thumb and forefinger of the right hand regulate the hausse, if necessary; cock the piece, seize it with the right hand at the small of the stock, the right shoulder raised or lowered according to the position of the target, the right elbow nearly to the height of the shoulder; aim at the point indicated, keeping the top of the muzzle-sight and the bottom of the notch of the hausse in the vertical plane of fire, the thumb of the right hand over the small of the stock, the last joint of the first finger of the right hand in front of but not touching the trigger, the other fingers of this hand grasping the small of the stock. The instructor, having taken, and detailed at the same time, the position of a skirmisher kneeling and aiming, will instruct the men in aiming from this position, in conformity with what has been prescribed in the school of the soldier. Two drills will be given to this exercise. One will suffice for soldiers previously instructed in the drill.

Keeping the piece steady when the trigger is pulled.

289. It is easy to preserve the aim until the trigger is pressed upon in order to discharge the piece; but, when this is done, the aim is maintained with difficulty. When pressing on the trigger, the line of sight is apt to be deranged: although properly directed before touching the trigger, it may not be so at the moment the discharge takes place. The report of the discharge of his piece should find the soldier still preserving his aim. The soldier will attain this if he holds his breath from the moment he commences to touch the

trigger until the gun is discharged; if he does not pull the trigger with a jerk, or suddenly, but increases the pressure on the trigger by degrees; if he places his finger in such a manner upon the trigger as to exercise its full force, pressing not on the extremity of the finger, but on the last joint, or as near this joint as the conformation of the man will permit. The instructor, holding a gun in a convenient position similar to that of charge-bayonet, will point out to each soldier in succession the manner of pulling the trigger, which will be done with the first finger of the right hand as described above, the remaining fingers of this hand under and grasping the small of the stock, the thumb over the stock.

The men repeat after the instructor, in succession, what he has just executed. After this has been repeated as often as necessary, the instructor explains to his squad how they should manage in order to fire without deranging the position of the piece after bringing the line of sight to bear on an object. He will explain and execute this as follows:

Press upon the trigger by degrees with the last joint of the first finger of the right hand, closing the muscles of this finger without moving the arm, holding the breath, the sound of the discharge finding the soldier preserving the line of sight upon the point aimed at. Remain aiming an instant after the gun is discharged, to be assured that the object is still in the line of sight. In actual firing, it will be impossible to preserve the aim the instant the gun is discharged; but, should the gun hang fire, the soldier accustomed to remain an instant aiming will be more apt to make a good shot.

The instructor should make the soldier understand that a good marksman is known by the steadiness with which he preserves his gun when it misses fire.

The men will be made to take one, or the other, of the positions of a soldier aiming, as laid down in No. 287. They will be permitted to snap the gun without any commands being given to that effect. The instructor will indicate the distance, either assumed or real, of the target, and will see that the men use the sights corresponding to those distances. The instructor will command, for

instance, "Take the position of a 'skirmisher aiming standing' at 600 yards' aim."

The exercise given in this article is considered of great importance. It will be repeated for four drills. Two will suffice for those men who have been previously instructed.

Simulated firing with caps.

290. This is the same as the preceding, except that a cap will be used, and it will not be necessary to explain to the soldier the manner of pulling the trigger. Squads assembled in the quarters will be made to aim at a lighted candle, which will be placed three feet or more from the muzzle of the gun. The line of sight will be brought to bear below the flame; then, gradually raising the piece until the line of sight is directly on the flame, the cap will be exploded: if the cone and barrel of the piece are perfectly clear, and the piece correctly sighted, the body kept steady when aiming and at the moment the cap explodes, the candle will be extinguished. Simulated firing with caps will be executed in two drills. Ten caps per man will be exploded at each drill; eight caps standing and two kneeling.

Simulated firing with blank cartridges.

291. Firing with blank cartridges will be conducted in conformity with the principles laid down. The squad will be formed on the drill-ground as prescribed in No. 287. The men will fire in succession at a target, placed or supposed to be placed at different distances. The rules laid down in the foregoing examples relating to a soldier aiming will be strictly followed. This lesson will be executed in two drills; ten cartridges will be fired per man at each drill; eight standing and two kneeling.

The object of these drills is to accustom the men to preserve their aim when firing.

Estimating distances.

292. The company assembled fully equipped as for drill will be divided into at least three squads, or as many as there are company

officers present. Each officer is provided with a small cord, 25 yards long. The instructor will measure on the ground a right line, which will be marked off into distances,

0, 50, 100, 150, 200, yards; 0, 50, 100, 150, 200,

marking these distances, as measured, with a stake, stone, or line, on the ground. He will now direct each man of his squad to pace off the measured distance of 100 yards, cautioning them to be careful and preserve their natural gait, without attempting to increase or diminish the length of their step. He will direct the men to count the number of steps they take in passing over the distance of 100 yards. This having been repeated at least three times by each soldier, who reports each time the number of steps taken by him in passing over 100 yards, the ratio which a yard bears to the step of each soldier becomes known. The instructor will inform each soldier the number of steps it will be necessary for him to take to pass over 10 yards. The soldier now knowing the number of steps he must take to pass over 10 and 100 yards, it will be easy for him to measure any distance with sufficient accuracy for all practical purposes when firing.

To estimate a distance greater than 100 yards — in steps — the soldier, having started from the point of departure, will count the number of steps he should take to pass over 100 yards; extending as a tally, at the moment of arrival, the thumb of his right hand, the other fingers closed: he will recommence then his count, extending the first finger of the right hand when he has counted the number of steps necessary to make a second 100 yards, and so on, until he arrives at a point less than 100 yards from the point up to which he is to measure. When the soldier finds himself less than 100 yards from the object, he will count by tens, saying, "Ten yards," when he has counted the number of steps necessary for him to pass over the distance of 10 yards, 20, 30 yards, and so on, until he arrives very near the object, when he will increase the length of his step, counting each step a yard; and, by adding these to the tens, he will then only have to count as hundreds the number of fingers he has raised, to know the whole distance, expressed in yards.

The instructor will form his squad at one of the extremities of the 200 yard line, which has been measured in such a way that the right line measured shall be perpendicular to the front of the squad. He will order four men to place themselves, the first at the point marked 50 yards, the second at the point marked 100 yards, the third at the point marked 150 yards, and the fourth at the point marked 200 yards. The men selected should be as near the same height as practicable. The instructor will now direct the attention of the squad to the different parts of the dress, arms, equipment, and figure of the men on the line, such as can be easily distinguished and recognized at 50 yards, and such as cannot be readily recognized at this distance. He questions each man of his squad on these points, not expecting all to answer alike, since the eyesight of men will generally differ.

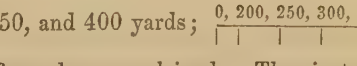
The instructor will now call the attention of the men to the soldier placed at the point 100 yards distant, and cause them to make similar observations upon this man as those already prescribed for the soldier at 50 yards. The instructor again questions the men, and will be careful to point out to them the difference that exists between those two distances, as illustrated by the difference in the appearance of the same objects at these distances. The instructor will make, in succession, upon the two men placed at 150 and 200 yards, similar observations as prescribed for the men at 50 and 100 yards; being very careful to call the attention of each man to the difference which exists between the four distances, illustrated by the distinctness with which certain objects are seen. The instructor will direct the squad to notice that men appear smaller the farther they are off, although in reality they are nearly the same height. The men stationed at the different points will be frequently replaced by others. When the men of the squad have made a sufficient number of observations upon the four distances above indicated, and when these observations are well impressed on their memories, the instructor will cause the squad to estimate intermediate distances between 50 and 200 yards.

In order to do this, the instructor will march his squad to a different part of the ground from that on which he measured the

distances in the first instance, and form it in one rank. He now sends out one man, directing him to halt at a given signal. The instant this man steps off, the squad is faced about, in order that the men may not count the steps taken. When the man proceeds a sufficient distance, he will be halted, facing towards the squad. The squad will now be faced to the front. The men will estimate the distance which separates them from the soldier. The instructor cautions the squad to recollect the observations made by them upon the men placed at the measured distances. The instructor, placing himself a short distance from the squad, calls each man to him in turn, directing them to give in their estimates in a low voice. This is necessary, in order that no man may be influenced in his judgment by the opinion of another. The instructor will now cause the distance to be measured, and, at the same time, stepped off by the men. The instructor now points out to the men the errors, if any were committed, in estimating the distance. In order to do this more distinctly, he may send a man to the point from which the squad started, pointing out all errors by observations on this man. The instructor will repeat this exercise as often as in his judgment is necessary, taking care each time to choose a different distance, but always between the limits above indicated.

Estimating distances should take place under different conditions of the atmosphere, cloudy, foggy, etc.; and, if the locality permits, squads should be drilled on ground the outline of which is diversified by hills, ravines, etc.

When the instructor judges that the men of his squad — who should, if possible, be the same during these exercises — have acquired a sufficient accuracy in estimating distances comprised between 50 and 200 yards, he will proceed to estimate distances comprised between 200 and 400 yards. To accomplish this, he will cause to be measured a distance of 400 yards, and mark, upon the right line so measured, distances of

0, 200, 250, 300, 350, and 400 yards; 

The squads will be formed as explained. The instructor now orders five men to place themselves, the first at 200, the second at

250, the third at 300, the fourth at 350, and the fifth at 400 yards, facing the squad and resting on their arms. He will make upon these different distances observations similar to those already made upon the lesser distances, and for that of 200 yards. This last distance should be the object of particular attention and study. The instructor will cause distances comprised between 200 and 400 yards to be estimated as explained for the lesser distances.

When the men have acquired sufficient accuracy in estimating distances comprised between 200 and 400 yards, they will be made to estimate distances comprised between 50 and 400 yards.

This having been accomplished, distances will be no longer estimated on single individuals, but on groups of men.

Each company, under the command of its captain, will be divided into two platoons, commanded by the first and second lieutenants, when not superintending the firing of a class. The captain will keep himself with one of the two platoons, having an eye to the exercise. The chief of each platoon, having halted his platoon in a favorable position indicated by the captain, will bring his platoon to an order, and rest. A group, composed of a corporal, a drummer or bugler, and two men, will proceed immediately in front of the platoon, following a line indicated by the chief of platoon, who will point out to the corporal two points on this line upon which to direct himself. The corporal, having passed over a distance of 200 yards, but not exceeding 700, will be at liberty to halt his group. He will then place the men one pace apart, in one rank, and, facing the platoon, bring them to an order, and rest, and take his place on the right of the rank, the centre of which should be established on the line. The chief of the platoon will now estimate the distance himself, and note the same in his note-book. He will now call out the non-commissioned officers, receive their estimates (which should be given in a low tone), and so on with the men. As soon as the officer in charge of the platoon commences to take down the estimates of the men, a sergeant, assisted by two men carrying a cord twenty-five yards long, will measure the distance which separates the platoon from the group, and note down the same. Should the number of units which remain after having noted the hundreds and

tens be less or equal to five, they will be rejected; if greater than five, they will be counted as ten. The officer having taken down the estimates, and the distance separating the platoon from the group having been measured, the officer will display a signal, and the sergeant who measured the distance will indicate the number of yards, by causing the drummer to sound a roll for each hundred, and a single tap for tens. The bugler will indicate the same by long and short notes.

The group, at the discretion of the officer commanding the platoon, may be made to increase or lessen the distance which separates it from the platoon, the corporal keeping the group within the limits prescribed, and on the line as indicated to him. When he halts the group, he will be careful to establish it on the line facing the platoon.

The sergeant charged with measuring the distance will retire a few paces from the line after having marked the point up to which he last measured.

He will observe the platoon, and as soon as its chief commences recording the estimates he will measure the distance which separates the group from its first station, taking note of this distance, and adding it to the first or subtracting it, as the case may be.

In estimating distances comprised between 700 and 1000 yards, the number composing a group will be increased to eight men, a corporal, and drummer or bugler. The groups will be formed sometimes in one and sometimes in two ranks.

In all other respects the rules laid down for estimating distances between 200 and 700 yards will be followed.

Instruction in estimating distances will be given when it does not interfere with other parts of the soldiers' drill. It will, however, always precede ball-practice, and be carried on during this practice. When one squad is occupied in firing at the target, the remaining squads will be exercised in estimating distances.

Officers, particularly, should be prompt in estimating distances correctly, as they are called upon to conduct and regulate the fire in presence of an enemy.

Firing with Ball Cartridges at Different Distances, Formation of Classes, etc.

293. The distances at which the targets are placed will be 150, 225, 250, 300, 325, 350, 400, 450, 500, 550, 600, 700, 800, 900, and 1000 yards.

These distances will be carefully measured and staked off on the "firing-ground."

The surfaces fired at will be,

at 150 and 225	yards	one target	6 ft.	high and 22	in. broad.
225 and 300	"	one	"	" 44	"
325, 350, and 400	"	one	"	" 66	"
450 and 500	"	one	"	" 88	"
550 and 600	"	one	"	" 110	"
700	"	one	"	" 132	"
800	"	one	"	" 176	"
900	"	one	"	" 220	"
1000	"	one	"	" 264	"

Four rounds will be fired at each of the above distances. The company will be divided into three equal classes, non-commissioned officers equally distributed.

After the company has fired at the several distances 150, 225, 250, 300, 325, 350, and 400 yards, the classes will be rearranged according to merit of firing,—the first class composed of those men who have hit the target the greatest number of times, the second class of those who come next in order, and so on with the third, keeping the classes as nearly equal as practicable. Non-commissioned officers will not be assigned to classes according to merit, but according to rank, a sergeant in each class, the presence of non-commissioned officers being necessary with classes when estimating distances, etc. When the firing has been executed at the fifteen distances, the classes will be again re-formed, as prescribed above; previous to which no change will be made.

Men who from unavoidable causes have missed drills will be placed in that class to which the number of their shots that hit the

target entitles them, — which will be determined by a simple calculation.

A list of the company, arranged by classes, will be kept exposed in the quarters until new lists are formed. The object in forming classes is that the officers may know the good marksmen in their companies, and to stimulate the pride of the men.

When the company arrives on the ground, the classes will be paraded. The first class, formed in one rank, will take position ten steps in rear of the point from which the firing takes place, the centre of the rank on and perpendicular to the plane of fire.

The remaining classes will be divided into as many squads per class as there are intelligent non-commissioned officers available; and these squads, superintended by an officer, will be exercised, on suitable ground near the firing-ground, in estimating distances. When estimating distances greater than 400 yards, the two classes may be united, in which case the detachment will be commanded by an officer. The officer superintending the firing will order his class to load at will, and then bring them to a "support arms," or "order arms," and rest.

Before a man fires, a roll on the drum, or note on the bugle, will be sounded. At this signal the markers will take their places. At the command "Commence firing," the man on the right will take the position in front of the squad that has been pointed out to him, and fire, retiring, as soon as he has fired, three paces in rear of his first position; and so on with the rest. When a class has fired, it will reload at the commands "Load at will," "Load," and thus continue until the four shots have been expended. Three shots will be fired standing, the fourth kneeling. The firing of the other classes will be conducted in the same manner. Officers should retire a short distance from the soldier who is about to fire, and be careful not to speak to him when in the act of firing. Officers will pay particular attention that all the principles are followed which have been laid down in the foregoing articles.

Balls which strike within the black lines will have no greater value on the "record-book" than those which strike any other part of the target.

An intelligent non-commissioned officer, assisted by a man, will place themselves in a hole dug at the foot and in front of the target, protected by a breastwork of earth thrown upon that side from which the firing takes place. This non-commissioned officer will mark the shots which strike the target. He will be provided with a small flag, and a rod about six feet long, on one end of which will be nailed a circular disk of wood, or other material, six or eight inches in diameter, painted on one side white, on the other black. When a ball strikes outside the black, he will cover the shot-hole with the disk, presenting the black side to the detachment; when inside the black, the white side will be presented to view. Firing will only be permitted when the flag is down. The marker should be provided with a pot of paste, a brush and patches of paper, when the target covered with muslin is used. After five shots, the marker will paste patches over the ball-holes, or otherwise deface them. When cast-iron targets are used, the marker should be provided with black and white paint.

Should it not be possible to obtain the greatest range laid down, the entire number of shots will nevertheless be fired. The shots, in that case, will be divided equally between the 150 yard range and the greatest available range.

When the first class has nearly completed firing its four rounds, the drummer will be directed to sound a roll, or the bugler the signal "Commence firing."

The second class will then be marched to the position occupied by the first, and execute what has been laid down above.

During the remainder of the drill, the first class will be exercised in estimating distances. It will be found to economize time, and the record of shots can be better kept, by keeping the same non-commissioned officer superintending the marking of shots during the entire drill.

Firing as Skirmishers.

294. The company will now be exercised in firing as skirmishers. Three drills will be given to this exercise. Ten cartridges will be fired per man at each drill. When firing as skirmishers, the men

will be permitted to take that position which suits them best. The line of skirmishers will fire first advancing, then retreating, conforming to the principles laid down in the instruction for skirmishers. The targets will be six feet high and twenty-two inches wide, placed upon a line parallel to the line of skirmishers and six yards apart.

As many targets will be used as the nature of the ground and a due regard to economy will permit. A line will be staked off parallel to the line of targets and 350 yards distant. The line of skirmishers, formed a suitable distance from this line, will advance upon it, and when on the line the command will be given "Commence firing:" the line of skirmishers will advance and fire five rounds; the remaining five will be fired retreating.

The firing during the second drill will be executed as laid down for the first. The surface fired at will be double; the targets placed six yards apart. The firing will commence when the skirmishers arrive on a line 600 yards from the targets. The number of targets will not be limited. Five cartridges will be fired advancing, and five retreating.

Firing during the third drill will commence when the skirmishers reach a line 800 yards from the line of targets. Four targets will be used, placed 12 yards apart. The dimension of each target will be 6 feet by 88 inches.

Firing by Company or Rank, and by Platoon.

295. The exercises in firing will terminate with firing by file, by company or rank, and by platoon. At each drill six cartridges per man will be fired by file, two by rank or company, and two by platoon. The distances at which the several firings take place will be 300, 400, and 500 yards. The target used will be 6 feet high and 176 inches broad. The vertical and horizontal stripes on this target will be 12 inches in width.

The firings by file, by company or rank, and by platoon, will be executed in three drills: at the first, the firing will commence at 300 yards; the second at 400; and the third at 500 yards. At each drill, the firing will commence by file, then by company or

rank, and will end by firing by platoon. When firing at 300 yards, whether by file, by company or rank, or platoon, bayonets will be fixed.

As the position of soldiers firing by file, company or rank, and by platoon, is different from that taken when firing as a skirmisher, it will be necessary, before executing the above firings, to habituate the men to the positions which they should take by simulated firings.

The simulated firing will first be by allowing the hammer to fall upon the cone. The men will be made to take the positions as laid down in the school of a soldier as applicable to those different firings. They will be accustomed to regulate the hausse in ranks, putting in practice as much as possible, when firing in ranks, what has been prescribed for individual firing.

During the first part of the first drill, ten caps per man will be exploded—six in file firing, two by company or rank, and two by platoon. During the second part of the same drill, ten blank cartridges will be fired,—six by file, two by company or rank, and two by platoon. The front rank will be made frequently to change positions with the rear rank. Firing with ball cartridges will then take place, preceding each real fire by simulated firings, when the hammer will be allowed to fall upon the cone. The proper execution of platoon and company firing depends in a great degree upon the commands of the officer. If he does not allow a sufficient interval between the commands "Aim" and "Fire," the men will not have time to aim. To obey the command in time, the trigger will be pulled suddenly. The result will be, that much of the efficacy of the fire will be lost, and a simultaneous fire, upon which a great deal depends, will not be obtained; for experience and reason demonstrate the fact, everything else being equal, that platoon-firing is more effective in proportion as it is executed together. When the officer leaves a suitable interval between the commands "Aim" and "Fire," the men have time to adjust the piece to the shoulder, to place the finger in front of the trigger, and to exercise a slight pressure on the trigger when awaiting the command "Fire." They are then ready to fire the moment the command is given, thus obtaining a simultaneous and effective fire. But, if the officer superintending the firing

should be careful to leave a sufficient interval between the commands "Aim" and "Fire," he should no less avoid the opposite extreme. If he keeps the men aiming too long, they will become fatigued, will lose their aim, and will not be prepared to obey the command when given. It is only by commanding, and seeing platoon and company firing executed with ball and cartridge, and judging of its effect by the number of balls put in the target, that officers can appreciate the influence of a command promptly given, and acquire the habit of thus giving their commands.

When firing by file, by company or rank, or by platoon, the officers will indicate the distance which separates the company from the object to be fired at. Men in ranks are necessarily more or less constrained in their movements. Occupied, moreover, in loading their pieces, soldiers will not be able to judge the distance which separates them from the enemy.

The most suitable moment to indicate the distance will be immediately before the command "Aim" is given. The men will then be in a position to regulate the hausse. To direct the fire of a platoon upon an enemy, for example, at 400 yards, the officer will command:

Fire by platoon. *Platoon*—READY—*at* 400 *yards*—AIM—FIRE—LOAD.

The above observations are applicable to firing by company or rank.

When firing by file, the distance will be announced immediately before the command "Commence firing," and after the command "Ready."

Inaccuracy of fire may arise from very different causes.

1st. From ignorance of, or failing to apply, the principles which govern good marksmen when firing.

2d. A ball, when fired, may be, and generally is, deflected from its course when describing the trajectory.

The first causes may be obviated in a great degree by practical and theoretical instruction.

The second is attributable to the piece, and exterior influences

acting upon the ball. Some of the causes cannot be modified by the most skilful marksman; while others, to a great extent, may be counteracted. It would be unreasonable to expect comparative perfection *in every gun* issued from our large manufactories. Our rifle musket is believed to be as perfect an arm of its kind as has ever been made. A perfect arm can only exist in theory. A soldier always firing the same piece will become acquainted with its defects, and will be able to make such allowances when firing as experience teaches him to be necessary.

Among the exterior influences which affect the accuracy of a gun, the principal one is the wind. If the wind blows from the right, the ball will be deflected to the left; to the right, if it blows from the left; raised, if from the rear; and lowered, if from the front; raised and to the left, if it blows from the rear and right. The deviation produced by the wind will be increased in proportion as the distance increases: it increases even more rapidly than the distance. Experience alone can teach the soldier the allowance he must make for the wind. Not only does the wind affect accuracy of fire by deflecting the ball from its course, but it prevents a person from holding his piece steady.

The temperature and dampness of the atmosphere influence the ball in its flight. It has been remarked that in dry weather longer ranges have been obtained than in damp weather.

When firing at an object in motion, allowance must be made for the motion. For instance, when firing at a horseman galloping in a direction perpendicular to the plane of fire, it is necessary that the line of sight should move in proportion as the horseman moves, and should be directed in advance of him in proportion as he is farther off.

In opening a fire upon an enemy, particular attention should be paid to discover where the first balls fired strike. It would be better that the balls fall short of, rather than pass over, the enemy. In the first case, we stand a chance of a ricochet ball taking effect. From which we naturally deduce that a soldier should be impressed with the necessity of firing too low rather than too high.

TARGETS.

296. The difficulty of procuring any specified material for targets at many posts precludes the adoption of any particular target.

The surface fired at, at the different distances, will alone be fixed by regulation.

The following suggestions are offered:

The best targets, and those recommended for permanent posts, are of cast-iron,—by far the cheapest and most durable. The different surfaces required could be obtained by having four cast-iron targets of the following dimensions, — one target 6 feet by 22 inches; one 6 feet by 44 inches; one 6 feet by 66 inches; and one 6 feet by 132 inches.

When cast-iron targets cannot be had, the next best are targets formed of wrought-iron frames with muslin stretched upon them. Four frames of the following dimensions, by combination, would enable us to obtain the surfaces required,—one 6 feet by 22 inches; one 6 feet by 44 inches; one 6 feet by 88 inches; one 6 feet by 110 inches; and all the parts could be carried in a wagon-body.

By carefully covering the ball-holes with patches of paper pasted on, we strengthen and thicken the target; and one of these targets will last longer than one would suppose.

The next best targets are wooden frames composed of four pieces, 6 inches wide and 1 inch thick, bolted together; the ends of the vertical sides projecting about a foot below, and sharpened, the frame covered with muslin and held in position by four guys fastened to the top and attached to pins in the ground in front and rear.

Every target will be marked by a vertical and a horizontal stripe, dividing it into four equal parts, and varying in width according to the distance, as follows:

At 150		and	225	yards	4	inches	wide.
" 250		"	300	"	5	"	"
" 325		"	350	"	8	"	"
" 400	450	"	500	"	12	"	"
" 550	600	"	700	"	16	"	"
" 800	900	"	1000	"	20	"	"

ARTICLE VI.

SCHOOL OF THE BATTALION.

To form the Regiment or Battalion.

297. At the signal, called the *adjutant's call*, the companies are marched from the company parades by their captains, the music playing. The color company serves as the basis of the formation, and is the first to form; the color-guard being at the point where the centre of the line is to rest, one marker is placed in front of it, his elbow touching the right corporal of the color guard, and another on the line at a little less than company distance from him, on his right, and facing towards him; the color company is halted three paces behind this line, faced to the front, and dressed up upon the line by the captain, who aligns it to the left.

The company on the left of the color is the next to take its post; it is halted three paces behind the line, its right nearly behind the left file of the color guard, and faced to the front; as soon as it halts the left guide of the company throws himself out, so as to be opposite one of the three left files of the company, faces to the right, and aligns himself upon the two markers; the captain then places himself on the left of the color guard, on a line with its front rank, and aligns the company to the right. The company on the right of the colors forms next upon the same principles; the right guide posts himself upon the line opposite one of the three right files of the company, and faces to the left; the captain places himself on the right of the color company, and aligns his company to the left.

The remaining companies take their posts on the left and right in succession, and when the formation is complete, the adjutant commands, *Guides posts;* at this command the guides on the line retire to

their places by passing through the intervals between the companies, and those captains who are on the left of their companies, shift to the right.

Opening and closing ranks, and the execution of the different fires.

To open and to close ranks.

298. The colonel, wishing the ranks to be opened, will command:

1. *Prepare to open ranks.*

At this command, the lieutenant-colonel and major will place themselves on the right of the battalion, the first on the flank of the file-closers, and the second four paces from the front rank of the battalion.

These dispositions being made, the colonel will command:

2. *To the rear, open order.* 3. MARCH.

At the second command, the covering sergeants, and the sergeant on the left of the battalion, will place themselves four paces in rear of the front rank, and opposite their places in line of battle, in order to mark the new alignment of the rear rank; they will be aligned by the major on the left sergeant of the battalion, who will be careful to place himself exactly four paces in rear of the front rank, and to hold his piece between the eyes, erect and inverted, the better to indicate to the major the direction to be given to the covering sergeants.

At the command *march*, the rear rank and the file-closers will step to the rear without counting steps; the men will pass a little in rear of the line traced for this rank, halt, and dress forward on the covering sergeants, who will align correctly the men of their respective companies.

The file-closers will fall back and preserve the distance of two paces from the rear rank, glancing eyes to the right; the lieutenant colonel will, from the right, align them on the file-closer of the left, who, having placed himself accurately two paces from the rear rank, will invert his piece, and hold it up erect between his eyes, the better to be seen by the lieutenant colonel.

The colonel, seeing the ranks aligned, will command:

4. FRONT.

At this command, the lieutenant colonel, major, and the left sergeant, will retake their places in line of battle.

The colonel will cause the ranks to be closed by the commands prescribed for the instructor in the school of the company.

THE FIRINGS.

299. The colonel will cause to be executed the fire by company, the fire by wing, the fire by battalion, the fire by file, and the fire by rank, by the commands to be herein indicated.

The fire by company and the fire by file will always be direct; the fire by battalion, the fire by wing, and the fire by rank, may be either direct or oblique.

When the fire ought to be oblique, the colonel will give, at every round, the caution *right* (or *left*) *oblique*, between the commands *ready* and *aim*.

The fire by company will be executed alternately by the right and left companies of each division, as if the division were alone. The right company will fire first; the captain of the left will not give his first command till he shall see one or two pieces at a ready in the right company; the captain of the latter, after the first discharge, will observe the same rule in respect to the left company; and the fire will thus be continued alternately.

The colonel will observe the same rule in the firing by wing.

The fire by file will commence in all the companies at once, and will be executed as has been prescribed in the school of the company. The fire by rank will be executed by each rank alternately.

The color-guard will not fire, but reserve itself for the defence of the color.

The fire by company.

The colonel, wishing the fire by company to be executed, will command:

1. *Fire by company.* 2. *Commence firing.*

At the first command, the captains and covering sergeants will take the positions indicated in the school of the company.

The color and its guard will step back at the same time, so as to bring the front rank of the guard in a line with the rear rank of the battalion. *This rule is general for all the different firings.*

At the second command, the odd numbered companies will commence to fire; their captains will each give the commands prescribed in the school of the company, observing to precede the command *company* by that of *first, third, fifth,* or *seventh,* according to the number of each.

The captains of the even numbered companies will give, in their turn, the same commands, observing to precede them by the number of their respective companies.

In order that the odd numbered companies may not all fire at once, their captains will observe, but only for the first discharge, to give the command *fire* one after another; thus, the captain of the third company will not give the command *fire* until he has heard the fire of the first company; the captain of the fifth will observe the same rule with respect to the third, and the captain of the seventh the same rule with respect to the fifth.

The colonel will cause the fire to cease by the sound to *cease firing;* at this sound, the men will execute what is prescribed in the school of the company; at the sound, for officers to take their places after firing, the captains, covering sergeants, and color-guard, will promptly resume their places in line of battle. *This rule is general for all the firings.*

The fire by wing.

When the colonel shall wish this fire to be executed, he will command:

1. *Fire by wing.* 2. *Right wing.* 3. READY. 4. AIM. 5. FIRE. 6. LOAD.

The colonel will cause the wings to fire alternately, and he will

recommence the fire by the commands: 1. *Right wing;* 2. AIM; 3. FIRE; 4. LOAD. 1. *Left wing;* 2. AIM; 3. FIRE; 4. LOAD; in conforming to what is prescribed in the school of the company.

The fire by battalion.

The colonel will cause this fire to be executed by the commands last prescribed, substituting for the first two, 1. *Fire by battalion;* 2. *Battalion.*

The fire by file.

To cause this to be executed, the colonel will command:

1 *Fire by file.* 2. *Battalion.* 3. READY. 4. *Commence firing.*

At the fourth command, the fire will commence on the right of each company. The colonel may, if he thinks proper, cause the fire to commence on the right of each platoon.

The fire by rank.

To cause this fire to be executed, the colonel will command:

1. *Fire by rank.* 2. *Battalion.* 3. READY. 4. *Rear rank.* 5. AIM. 6. FIRE. 7. LOAD.

This fire will be executed as has been explained in the school of the company, in following the progression prescribed for the two ranks which should fire alternately.

To fire by the rear rank.

When the colonel shall wish the battalion to fire to the rear, he will command:

1. *Face by the rear rank.* 2. *Battalion.* 3. *About* — FACE.

At the first command, the captains, covering sergeants, and file-closers will execute what has been prescribed in the school of the company; the color-bearer will pass into the rear rank, and for this purpose, the corporal of his file will step before the corporal next on his right to let the color-bearer pass, and will then take his

place in the front rank; the lieutenant-colonel, adjutant, major, sergeant-major, and the music will place themselves before the front rank, and face to the rear, each opposite his place in the line of battle—the first two passing around the right, and the others around the left of the battalion.

At the third command, the battalion will face about; the captains and covering sergeants observing what is prescribed in the school of the company No. 230.

The battalion facing thus by the rear rank, the colonel will cause it to execute the different fires by the same commands as if it were faced by the front rank.

The colonel, after firing to the rear, wishing to face the battalion to its proper front, will command:

1. *Face by the front rank.* 2. *Battalion.* 3. *About*—FACE.

At these commands, the battalion will return to its proper front by the means prescribed No. 230.

Different modes of passing from the order in battle to the order in column.

To break to the right or left into column.

300. Lines of battle will habitually break into column by company; they may also break by division or by platoon.

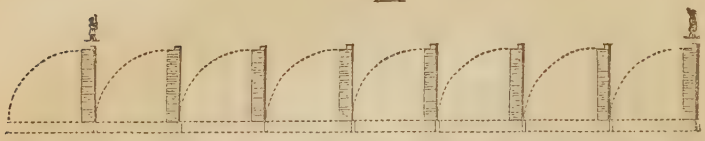
It is here supposed that the colonel wishes to break by company to the right; he will command:

1. *By company, right wheel.* 2. MARCH (or *double quick*—MARCH).

(Fig. 63.) At the first command, each captain will place himself rapidly before the centre of his company, and caution it that it has to wheel to the right; each covering sergeant will replace his captain in the front rank.

At the command *march*, each company will break to the right, according to the principles prescribed in the school of the company; each captain will conform himself to what is prescribed for the chiefs of platoon; the left guide, as soon as he can pass, will place him-

Fig 63.



self on the left of the front rank to conduct the marching flank, and when he shall have approached near to the perpendicular, the captain will command:

1. *Such company.* 2. HALT.

At the second command, which will be given at the instant the left guide shall be at the distance of three paces from the perpendicular, the company will halt; the guide will advance and place his left arm lightly against the breast of the captain, who will establish him on the alignment of the man who has faced to the right; the covering sergeant will place himself correctly on the alignment on the right of that man; which being executed, the captain will align his company by the left, command FRONT, and place himself two paces before its centre.

The captains having commanded FRONT, the guides, although some of them may not be in the direction of the preceding guides, will stand fast, in order that the error of a company that has wheeled too much or too little may not be propagated; the guides not in the direction will readily come into it when the column is put in march.

A battalion in line of battle will break into column by company to the left, according to the same principles, and by inverse means.

When the colonel shall wish to move the column forward without halting, he will intimate his intention, and when the companies have nearly completed the wheel, command:

3. *Forward.* 4. MARCH. 5. *Guide left.*

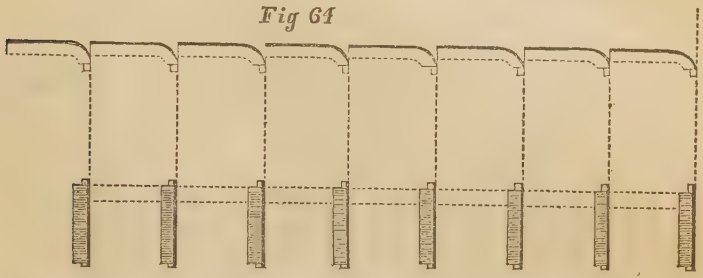
To break to the rear, by the right or left, into column.

301. When the colonel shall wish to cause the battalion to break to the rear, by the right, into column by company, he will command:

1. *By the right of companies to the rear into column.* 2. *Battalion right* — FACE. 3. MARCH (or *double quick* — MARCH).

(Fig. 64.) At the first command, each captain will place himself before the centre of his company, and caution it to face to the right; the covering sergeants will step into the front rank.

Fig 64



At the second command, the battalion will face to the right; each captain will hasten to the right of his company, and break two files to the rear; the first file will break the whole depth of the two ranks; the second file less; which being executed, the captain will place himself so that his breast may touch lightly the left arm of the front rank man of the last file in the company next on the right of his own. The captain of the right company will place himself as if there were a company on his right, and will align himself on the other captains. The covering sergeant of each company will break to the rear with the right files, and place himself before the front rank of the first file, to conduct him.

At the command *march*, the first file of each company will wheel to the right; the covering sergeant, placed before this file, will conduct it perpendicularly to the rear. The other files will come successively to wheel on the same spot. The captains will stand fast, see their companies file past, and at the instant the last file shall have wheeled, each captain will command:

1. *Such company.* 2. HALT. 3. FRONT. 4. *Left*—DRESS.

At the instant the company faces to the front, its left guide will place himself so that his left arm may touch lightly the breast of his captain.

At the fourth command, the company will align itself on its left

guide, the captain so directing it, that the new alignment may be perpendicular to that which the company had occupied in line of battle, and, the better to judge this, he will step back two paces from the flank.

The company being aligned, the captain will command: FRONT, and take his place before its centre.

302. The battalion marching in line of battle, when the colonel shall wish to break into column by company, to the rear, by the right, he will command:

1. *By the right of companies to the rear into column.* 2. *Battalion, by the right flank.* 3. MARCH (or *double quick* — MARCH).

At the first command, each captain will step briskly in front of the centre of his company, and caution it to face *by the right flank.*

At the command *march,* the battalion will face to the right; each captain will move rapidly to the right of his company and cause it to break to the right; the first file of each company will wheel to the right, and the covering sergeant placed in front of this file will conduct it perpendicularly to the rear; the other files will wheel successively at the same place as the first. The captains will see their companies file past them; when the last files have wheeled, the colonel will command:

3. *Battalion, by the left flank* — MARCH. 4. *Guide left.*

At the command *march,* the companies will face to the left, and march in column in the new direction. The captains will place themselves in front of the centres of their respective companies.

To break to the rear by the left, the colonel will give the same commands as in the case of breaking to the rear by the right, substituting the indication *left,* for that of *right.*

The battalion may be broken by division to the rear, by the right or left, in like manner.

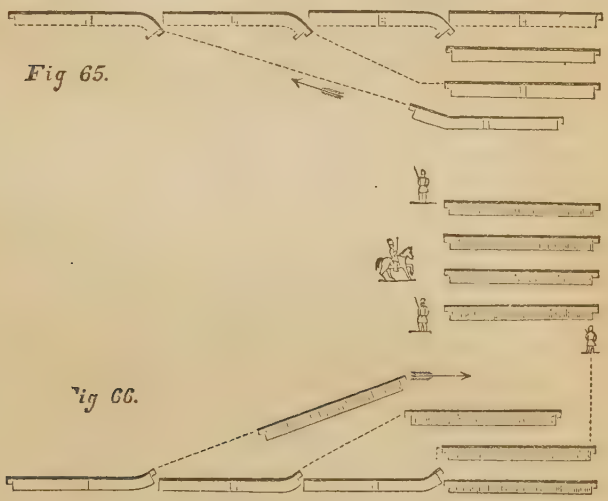
To ploy the battalion into close column.

303. This movement may be executed by company or by division, on the right or left subdivision, or on any other subdivision, right or left in front.

To ploy the battalion into close column by division in rear of the first, the colonel will command:

1. *Close column, by division.* 2. *On the first division, right in front.* 3. *Battalion right*—FACE. 4. MARCH (or *double quick* —MARCH).

(Fig. 65.) At the second command, all the chiefs of division will place themselves before the centres of their divisions; the chief of the first will caution it to stand fast; the chiefs of the three others



will remind them that they will have to face to the right, and the covering sergeant of the right company of each division will replace his captain in the front rank, as soon as the latter steps out.

At the third command, the last three divisions will face to the right; the chief of each division will hasten to its right, and cause files to be broken to the rear, as indicated No. 301; the right guide will break at the same time, and place himself before the front rank man of the first file, to conduct him, and each chief of division will place himself by the side of this guide.

The moment these divisions face to the right, the junior captain

in each will place himself on the left of the covering sergeant of the left company, who will place himself in the front rank. *This rule is general for all the ploynents by division.*

At the command *march*, the chief of the first division will add, *guide left;* at this, its left guide will place himself on its left, as soon as the movement of the second division may permit, and the file-closers will advance one pace upon the rear rank.

All the other divisions, each conducted by its chief, will step off together, to take their places in the column; the second will gain, in wheeling by file to the rear, the space of six paces, which ought to separate its guide from the guide of the first division, and so direct its march as to enter the column on a line parallel to this division; the third and fourth divisions will direct themselves diagonally towards, but a little in rear of, the points at which they ought, respectively, to enter the column; at six paces from the left flank of the column, the head of each of these divisions will incline a little to the left, in order to enter the column as has just been prescribed for the second, taking care also to leave the distance of six paces between its guide and the guide of the preceding division. At the moment the divisions put themselves in march to enter the column, the file-closers of each will incline to the left, so as to bring themselves to the distance of a pace from the rear rank.

Each chief of these three divisions will conduct his division till he shall be up with the guide of the directing one; the chief will then himself halt, see his division file past, and halt it the instant the last file shall have passed, commanding:

1. *Such division.* 2. HALT. 3. FRONT. 4. *Left*—DRESS.

At the second command, the division will halt; the left guide will place himself promptly on the direction, six paces from the guide which precedes him, in order that, the column being formed, the divisions may be separated the distance of four paces.

At the third command, the division will face to the front; at the fourth, it will be aligned by its chief, who will place himself two paces outside of his guide, and direct the alignment so that his division may be parallel to that which precedes—which being done,

he will command, FRONT, and place himself before the centre of his division.

The lieutenant-colonel, placing himself in succession in rear of the left guides, will assure them on the direction as they arrive, and then move to his place outside of the left flank of the column six paces from, and abreast with, the first division. In assuring the guides on the direction, he will be a mere observer, unless one or more should fail to cover exactly the guide or guides already established. *This rule is general.*

To ploy the battalion in front of the first division, the colonel will give the same commands, substituting the indication *left* for that of *right* in front. (See Fig. 66.)

At the second and third commands, the chiefs of divisions and the junior captains will conform themselves to what has been prescribed above; but the chiefs of the last three divisions, instead of causing the first two files to break to the rear, will cause them to break to the front.

At the fourth command, the chief of the first division will add: *Guide right.*

The three other divisions will step off together to take their places in the column in front of the directing division; each will enter in such manner that, when halted, its guide may find himself six paces from the guide of the division next previously established in the column.

Each chief of these divisions will conduct his division, till his right guide shall be nearly up with the guide of the directing one; he will then halt his division, and cause it to face to the front; at the instant it halts, its right guide will face to the rear, place himself six paces from the preceding guide, and cover him exactly—which being done, the chief will align his division by the right.

The lieutenant-colonel, placed in front of the right guide, of the first division, will assure the guides on the direction as they successively arrive.

The movement being ended, the colonel will command:

Guides, about — FACE.

At this, the guides, who are faced to the rear, will face to the front

304. To ploy the battalion in rear, or in front of the fourth division, the colonel will command:

1. *Close column by division.* 2. *On the fourth division, left* (or *right*), *in front.* 3. *Battalion left*—FACE. 4. MARCH (or *double quick* —MARCH).

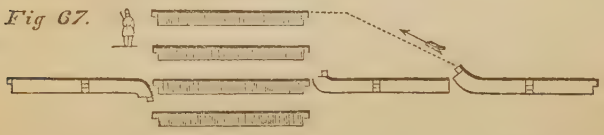
These movements will be executed according to the principles of those which precede, but by inverse means: the fourth division on which the battalion ploys will stand fast; the instant the movement commences, its chief will command, *guide right* (or *left*).

305. The foregoing examples embrace all the principles: thus, when the colonel shall wish to ploy the battalion on an interior division, he will command:

1. *Close column by division.* 2. *On such division, right* (or *left*) *in front.* 3. *Battalion inwards* — FACE. 4. MARCH (or *double quick* — MARCH).

(Fig. 67.) The instant the movement commences, the chief of the directing division will command, *guide left* (or *right*).

Fig 67.



The divisions which, in the order in battle, are to the right of the directing division, will face to the left; those which are to the left will face to the right.

To march in column at full distance.

306. When the colonel shall wish to put the column in march, he will indicate to the leading guide two distinct objects in front, on the line which the guide ought to follow. This guide will immediately put his shoulders in a square with that line, take the more distant object as the point of direction, and the nearer one as the intermediate point. The colonel will then command:

1. *Column forward.* 2. *Guide left* (or *right.*) 3. MARCH (or *double quick* — MARCH).

At the command *march,* briskly repeated by the chiefs of subdivision, the column will put itself in march, conforming to what is prescribed in the school of the company, No. 244.

The leading guide may always maintain himself correctly on the direction by keeping steadily in view the two points indicated to him, or chosen by himself; if these points have a certain elevation, he may be assured he is on the true direction, when the nearer masks the more distant point.

The following guides will preserve with exactness both step and distance; each will march in the trace of the guide who immediately precedes him, without occupying himself with the general direction.

The lieutenant-colonel will hold himself, habitually, abreast with the leading guide, to see that he does not deviate from the direction, and will observe, also, that the next guide marches exactly in the trace of the first.

To change direction in column at full distance.

307. The column being in march in the cadenced step, when the colonel shall wish to cause it to change direction, he will go to the point at which the change ought to be commenced, and establish a marker there, presenting the breast to the flank of the column; this marker, no matter to which side the change of direction is to be made, will be posted on the opposite side, and he will remain in position till the last subdivision of the battalion shall have passed. The leading subdivision being within a few paces of the marker, the colonel will command:

Head of column to the left (or *right*).

(Fig. 68.) At this, the chief of the leading subdivision will immediately take the guide on the side opposite the change of direction, if not already there. This guide will direct himself so as to graze the breast of the marker; arrived at this point, the chief will cause

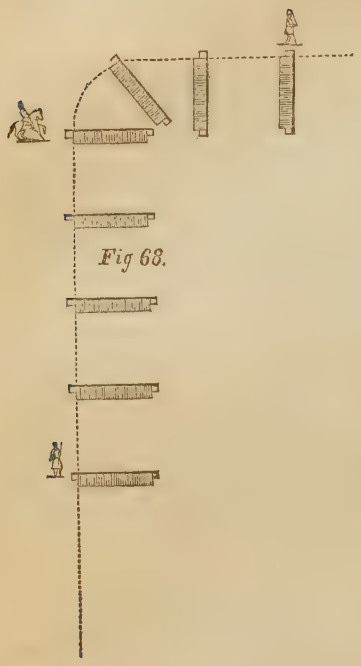


Fig 63.

his subdivision to change direction by the commands and according to the principles prescribed in the school of the company. When the wheel is completed, the chief of this subdivision will retake the guide, if changed, on the side of the primitive direction.

The chief of each succeeding subdivision, as well as the guides, will conform to what has just been explained for the leading subdivision.

When the column is at half distance the pivot man will take a pace of fourteen inches instead of nine.

The column being in march, the colonel will frequently cause the *about* to be executed while marching; to this effect, he will command:

1. *Battalion, right about.* 2. MARCH. 3. *Guide right.*

At the second command, the companies will face to the right about, and the column will then march forward in the opposite direction; the chiefs of companies will remain behind the front rank, the file-closers in front of the rear rank, and the guides will place themselves in the same rank.

To halt the column.

308. The column being in march, when the colonel shall wish to halt it, he will command:

1. *Column.* 2. HALT.

At the second command, briskly repeated by the captains, the

column will halt; no guide will stir, though he may have lost his distance, or be out of the direction of the preceding guides.

The column being in march, in double quick time, will be halted by the same commands. At the command *halt*, the men will halt in their places, and will themselves rectify their positions in the ranks.

The column being halted, when the colonel shall wish to form it into line of battle, he will move a little in front of the leading guide, and face to him; this guide and the following one will fix their eyes on the colonel, in order promptly to conform themselves to his directions.

If the colonel judge it not necessary to give a general direction to the guides, he will limit himself to rectifying the position of such as may be without, or within the direction, by the command *guide of* (such) *company*, or *guides of* (such) *companies, to the right*, (or *to the left;*) at this command, the guides designated will place themselves on the direction; the others will stand fast.

If, on the contrary, the colonel judge it necessary to give a general direction to the guides of the column, he will place the first two on the direction he shall have chosen, and command:

Guides, cover.

At this, the following guides will promptly place themselves on the direction covering the first two in file, and each precisely at a distance equal to the front of his company, from the guide immediately preceding; the lieutenant-colonel will assure them in the direction, and the colonel will command:

Left (or *right*)—DRESS.

At this command, each company will incline to the right or left, and dress forward or backward, so as to bring the designated flank to rest on its guide; each captain will place himself two paces outside of his guide, promptly align his company parallelly with that which precedes, then command FRONT, and return to his place in column.

To close the column to half distance, or in mass.

309. A column by company being at full distance right in front, and at a halt, when the colonel shall wish to cause it to close to half distance, on the leading company, he will command:

1. *To half distance, close column.* 2. MARCH (or *double quick* — MARCH).

At the first command, the captain of the leading company will caution it to stand fast.

At the command *march*, which will be repeated by all the captains, except the captain of the leading company, this company will stand fast, and its chief will align it by the left; the file-closers will close one pace upon the rear rank.

All the other companies will continue to march, and as each in succession arrives at platoon distance from the one which precedes, its captain will halt it.

At the instant that each company halts, its guide will place himself on the direction of the guides who precede, and the captain will align the company by the left; the file-closers will close one pace upon the rear rank.

No particular attention need be given to the general direction of the guides before they respectively halt; it will suffice if each follow in the trace of the one who precedes him.

The colonel, on the side of the guides, will superintend the execution of the movement, observing that the captains halt their companies exactly at platoon distance the one from the other.

The lieutenant-colonel, a few paces in front, will face to the leading guide and assure the positions of the following guides as they successively place themselves on the direction.

The major will follow the movement abreast with the last guide.

If the column be in march, the colonel will cause it to close by the same commands.

If the column be marching in double quick time, at the first command, the captain of the leading company will command *quick time*; the chiefs of the other companies will caution their companies to continue the march.

At the command march, the leading company will take quick, while the other companies continue to march in double quick time; and as each arrives at platoon distance from the preceding one, its chief will cause it to march in quick time.

When the rearmost company shall have gained its distance, the colonel will command:

Double quick — MARCH.

When the colonel shall wish to halt the column marching at double quick, and to cause it to close to half distance at the same time, he will notify the captain of the leading company of his intention, who, at the command *march*, will halt his company and align it to the left.

If the column be marching in quick time, and the colonel should not give the command *double quick*, the captain of the leading company will halt his company at the command *march*, and align it to the left. In the case where the colonel adds the command *double quick*, the leading company will continue at quick, while all the others, at the command *march*, take double quick time.

To close the column on the eighth, or rearmost company.

310. The column being at a halt, if, instead of causing it to close to half distance on the first company, the colonel should wish to cause it to close on the eighth, he will command:

1. *On the eighth company, to half distance close column.* 2. *Battalion about* — FACE. 3. *Column forward.* 4. *Guide right.* 5. MARCH (or *double quick* — MARCH).

At the second command, all the companies, except the eighth, will face about, and their guide will remain in the front rank, now the rear. At the fourth command, all the captains will place themselves two paces outside of their companies on the side of the guide.

At the command *march*, the eighth company will stand fast, and its captain will align it to the left; the other companies will put themselves in march, and as each arrives at platoon distance from the one established before it, its captain will halt it and face it to

the front. At the moment that each company halts, the left guide, remaining faced to the rear, will place himself promptly on the direction of the guides already established. Immediately after, the captain will align his company to the left, and the file-closers will close one pace on the rear rank.

If this movement be executed in double quick time, each captain, in turn, will halt, and command:

Such company right about—HALT.

At this command, the company designated will face to the right about, and halt.

All the companies being aligned, the colonel will cause the guides, who stand faced to the rear, to face about.

The lieutenant-colonel, placing himself behind the rearmost guide, will assure the position of the other guides in succession; the major will remain abreast with the rearmost company.

311. The column being in march, when the colonel shall wish to close it on the eighth company, he will command:

1. *On the eighth company, to half distance close column.* 2. *Battalion right about.* 3. MARCH (or *double quick*—MARCH). 4. *Guide right.*

At the first command, the captain of the eighth company will caution his company that it will remain faced to the front; the captains of the other companies will caution their companies that they will have to face about. At the command *march*, the captain of the eighth company will halt his company, and align it to the left; the file-closers will close one pace upon the rear rank.

The captains of the other companies, at the same command, will place themselves on the flank of the column; the subdivisions will face about, and as each arrives at platoon distance from the company immediately preceding it, its chief will face it to the front, and halt it. The instant each company halts, the guide on the directing flank, remaining faced to the rear, will quickly place himself on the direction of the guides already established. After which, the cap-

tain will align the company by the left, and the file-closers will close one pace upon the rear rank.

The lieutenant-colonel will follow the movement abreast of the first company. The major will place himself a few paces in rear of the guide of the eighth company, and will assure the position of the other guides in succession.

312. A column by division at full distance will close to half distance by the same means and the same commands.

A column by company, or by division, being at full or half distance, the colonel will cause it to close in mass by the same means and commands, substituting the indication *column, close in mass,* for that of *to half distance, close column.*

In a column, left in front, these various movements will be executed on the same principles.

Being in column at half distance, or closed in mass, to take distances.

To take distances by the head of the column.

313. The column being by company at half distance and at a halt, when the colonel shall wish to cause it to take full distances by the head, he will command:

By the head of column, take wheeling distance.

At this command, the captain of the leading company will put it in march; to this end, he will command:

1. *First company, forward.* 2. *Guide left.* 3. MARCH (or *double quick* — MARCH).

When the second shall have nearly its wheeling distance, its captain will command:

1. *Second company, forward.* 2. *Guide left.* 3. MARCH (or *double quick* — MARCH).

At the command *march,* which will be pronounced at the instant that this company shall have its wheeling distance, it will step off smartly, taking the step from the preceding company. Each of the

other companies will successively execute what has just been prescribed for the second.

The colonel will see that each company puts itself in march at the instant it has its distance. The lieutenant-colonel will hold himself at the head of the column, and direct the march of the leading guide. The major will hold himself abreast with the rearmost guide.

If the column, instead of being at a halt, be in march, the colonel will give the same commands, and add:

MARCH (or *double quick*—MARCH).

If the column be marching in quick time, at the command *march*, the captain of the leading company will cause *double quick time* to be taken; which will also be taken by the other companies as they successively attain their proper distance.

If the column be marching in *double quick time*, the leading company will continue to march at the same gait. The captains of the other companies will cause quick time to be taken, and as each company gains its proper distance, its captain will cause it to retake the *double quick step.*

To take distances on the rear of the column.

314. If the colonel wish to take distances on the rearmost company, he will establish two markers on the direction he shall wish to give to the line of battle, the first opposite to the rearmost company, the second marker towards the head of the column, at company distance from the first, and both facing to the rear; at the same time, the right general guide, on an intimation from the lieutenant-colonel, will move rapidly a little beyond the point to which the head of the column will extend, and place himself correctly on the prolongation of the two markers. These dispositions being made, the colonel will command:

1. *On the eighth company take wheeling distance.* 2. *Column forward.* 3. *Guide left.* 4. MARCH (or *double quick*—MARCH).

At the third command, the captains will place themselves two

paces outside of the directing flank; the captain of the eighth company will caution it to stand fast.

At the command *march*, repeated by all the captains, except the captain of the eighth company, this latter company will stand fast; its chief will align it to the left on the first marker, who is opposite to this company, and place himself before its centre, after commanding, FRONT. At this command, the marker will retire, and the left guide will take his place.

All the other companies will put themselves in march, the guide of the leading one directing himself a little within the right general guide; when the seventh company has arrived opposite the second marker, its captain will halt, and align it on this marker, in the manner prescribed for the eighth company.

When the captain of the sixth company shall see that there is, between his company and the seventh, the necessary space for wheeling into line, he will halt his company; the guide facing to the rear will place himself promptly on the direction, and the moment he shall be assured in his position, the captain will align the company by the left, and then place himself two paces before its centre; the other companies will in succession conform to what has been prescribed for the sixth company.

The colonel will follow the movement, and see that each company halts at the prescribed distance; he will promptly remedy any fault that may be committed, and as soon as all the companies shall be aligned, he will cause the guides, who are faced to the rear, to face about.

The lieutenant-colonel will assure the left guides on the direction in succession, placing himself in their rear, as they arrive. The major will hold himself at the head of the column, and will direct the march of the leading guides.

To take distances on the head of the column.

315. The colonel, wishing to take distances on the leading company, will establish two marches in the manner just described, one abreast with this company, and the other at company distance in rear of the first, both facing to the front; the left general guide,

on an intimation from the lieutenant-colonel, will move rapidly to the rear, and place himself correctly on the prolongation of the two marches, a little beyond the point to which the rear of the column will extend; these dispositions being made, the colonel will command:

1. *On the first company take wheeling distance.* 2. *Battalion about* —FACE. 3. *Column forward.* 4. *Guide right.* 5. MARCH (or *double quick* — MARCH).

At the second command, all the companies, except the one designated, will face about, the guides remaining in the front rank, now become the rear. At the fourth command, the captains will place themselves outside of their guides.

At the command *march*, the captain of the designated company will align it on the marker placed by its side.

The remaining companies will put themselves in march, the guide of the rearmost one will direct himself a little within the left general guide; when the second company shall have arrived opposite the second marker, its captain will face it about, halt it, and align it as has just been prescribed for the first company.

The captains of the remaining companies will each, in succession, conform himself to what has just been prescribed for the captain of the second.

The colonel, lieutenant-colonel, and major, will conform to what is prescribed in No. 314.

To change direction in column closed in mass.

To change direction in marching.

316. A column by division, closed in mass, being in march, will change direction by the *front* of subdivisions.

Whether the change be made to the reverse, or to the pivot flank, it will always be executed on the principle of wheeling in marching; to this end, the colonel will first cause the battalion to take the guide on the flank opposite to the intended change of direction, if it be not already on that flank.

A column by division, closed in mass, right in front, having to change direction to the right, the colonel, after having caused a marker to be placed at the point where the change ought to commence, will command:

1. *Battalion, right wheel.* 2. MARCH.

(Fig. 69.) At the command *march*, the leading division will wheel as if it were part of a column at half distance.

The instant that this division commences the wheel, all the others

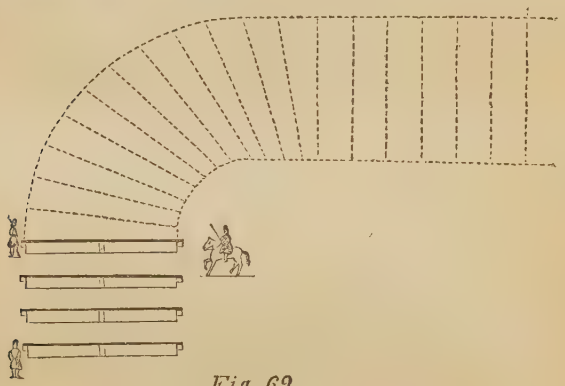
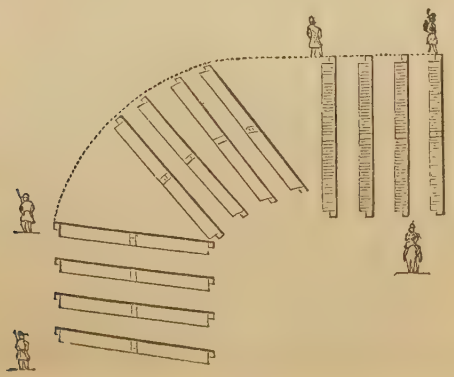


Fig 69.



will, at once, conform themselves to its movement; to this end the left guide of each, advancing slightly the left shoulder, and lengthening a little the step, will incline to the left, and will observe, at the same time, to gain so much ground to the front that there may constantly be an interval of four paces between his division and that which precedes it; and as soon as he shall cover the preceding guide, he will cease to incline, and then march exactly in his trace.

Each division will conform itself to the movement of its guide; the men will feel lightly the elbow towards him and advance a little the left shoulder the instant the movement commences; each file, in inclining, will gain so much the less ground to the front, as the file shall be nearer to the pivot, and the right guide will gain only so much as may be necessary to maintain between his own and the preceding division the same distance which separates their marching flanks.

The colonel, seeing the wheel nearly ended, will command:

1. *Forward.* 2. MARCH.

At the second command, which will be given at the instant the leading division completes its wheel, it will resume the direct march; the other divisions will conform themselves to this movement; and if any guide find himself not covering his immediate leader, he will, by slight degrees, bring himself on the trace of that guide, by advancing the right shoulder.

To change direction from a halt.

317. A column by company, or by division, closed in mass, being at a halt, when the colonel shall wish to give it a new direction, and in which it is to remain, he will cause it to execute this movement by the flanks of subdivisions, in the following manner:

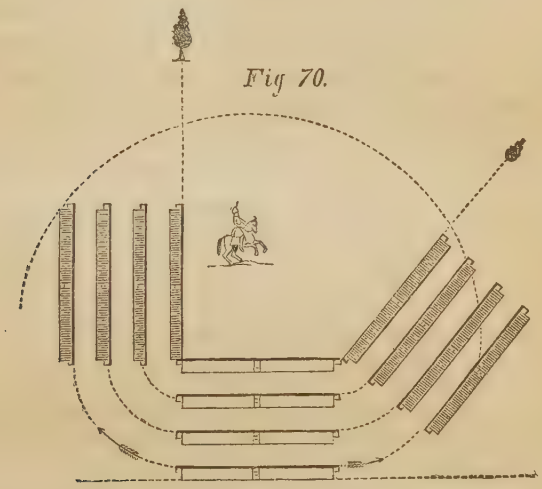
The battalion having the right in front, when the colonel shall wish to cause it to change direction by the right flank, he will indicate to the lieutenant-colonel the point of direction to the right; this officer will immediately establish, on the new direction, two markers, distant from each other a little less than the front of the

first subdivision, the first marker in front of the right file of this subdivision; which being executed he will command:

1. *Change direction by the right flank.* 2. *Battalion, right*—FACE. 3. MARCH (or *double quick*—MARCH).

(Fig. 70.) At the second command, the column will face to the right, and each chief of subdivision will place himself by the side of his right guide.

Fig 70.



At the command *march*, all the subdivisions will step off together: the right guide of the leading one will direct himself from the first step, parallelly to the markers placed in advance on the new direction; the chief of the subdivision will not follow the movement, but see it file past, and as soon as the left guide shall have passed, he will command:

1. *First company* (or *first division*). 2. HALT. 3. FRONT. 4. *Left*—DRESS.

At the fourth command, the subdivision will place itself against the two markers, and be promptly aligned by its chief.

The right guide of each of the following subdivisions will con-

form himself to the direction of the right guide of the subdivision preceding his own in the column, so as to enter on the new direction parallelly to that subdivision, and at the distance of four paces from its rear rank.

Each chief of subdivision will halt in his own person, on arriving opposite to the left guides already placed on the new direction, see his subdivision file past, and conform himself, in halting and aligning it, to what is prescribed above.

If the change of direction be by the left flank, the colonel will cause markers to be established as before, the first in front of the left file of the leading subdivision, and then give the same commands, substituting the indication *left* for *right*.

Being in column by company, closed in mass, to form divisions.

318. The column being closed in mass, right in front, and at a halt, when the colonel shall wish to form divisions, he will command:

1. *Form divisions.* 2. *Left companies, left* — FACE. 3. MARCH (or *double quick* — MARCH).

At the first command, the captains of the left companies will caution them to face to the left. At the second command, the left companies will face to the left, and their captains will place themselves by the side of their respective left guides.

The right companies, and their captains, will stand fast; but the right and left guides of each of these companies will place themselves respectively before the right and left files of the company, both guides facing to the right, and each resting his right arm gently against the breast of the front rank man of the file, in order to mark the direction.

At the command *march*, the left companies only will put themselves in march, their captains standing fast; as each shall see that his company, filing past, has nearly cleared the column, he will command:

1. *Such company.* 2. HALT. 3. FRONT.

The first command will be given when the company shall yet have

four paces to march; the second the instant it shall have cleared its right company; and the third immediately after the second.

The company having faced to the front, the files, if there be intervals between them, will promptly incline to the right; the captain will place himself on the left of the right company of the division, and align himself correctly on the front rank of that company. The left guide will, at the same time, place himself before one of the three left files of his company, face to the right, and cover the guides of the right company correctly; the moment his captain sees him established on the direction, he will command:

Right — DRESS.

At this, the left company will dress forward on the alignment of the right company; the front rank man, who may find himself opposite to the left guide, will, without preceding his rank, rest his breast lightly against the right arm of this guide; the captain of the left company will direct its alignment on this man, and the alignment being assured, he will command FRONT; but not quit his position.

The colonel seeing the divisions formed, will command:

Guides — POSTS.

At this, the guides who have marked the fronts of division, will return to their places in column, the left guide of each right company passing through the interval in the centre of the division, the senior captain of each division will take his post two paces in front of the division, and the junior captain will place himself between the two companies.

319. If the column be in march, instead of at a halt, when the colonel shall wish to form divisions, he will command:

1. *Form divisions.* 2. *Left companies, by the left flank.* 3. MARCH (or *double quick* — MARCH).

At the first command, the captains of the right companies will command, *mark time*, the captains of the left companies will caution their companies *to face by the left flank*. At the third command, the right companies will mark time, the left companies will

face to the left, the captains of the left companies will each see his company file past him, and when it has cleared the column, will command:

Such company by the right flank — MARCH.

As soon as the divisions are formed, the colonel will command:

4. *Forward.* 5. MARCH.

At the fifth command, the column will resume the gait at which it was marching previous to the commencement of the movement. The guides of each division will remain on the right and left of their respective companies; the left guide of the right company will pass into the line of file-closers, before the two companies are united; the right guide of the left company will step into the rear rank.

Being in column at full or half distance to form divisions.

320. If the column be at a halt, and, instead of being closed in mass, is at full or half distance, divisions will be formed in the same manner; but the captains of the left companies, if the movement be made in quick time, after commanding FRONT, will each place himself before the centre of his company, and command:

1. *Such company, forward.* 2. *Guide right.* 3. MARCH.

If the movement be made in double quick time, each will command as soon as his company has closed the column:

1. *Such company by the right flank.* 2. MARCH.

If the left be in front, the movement will be executed by inverse means.

Countermarch of a column at full or half distance.

321. In a column at full or half distance, the countermarch will be executed by the means indicated, school of the company; to this end, the colonel will command:

1. *Countermarch.* 2. *Battalion right* (or *left*) — FACE. 3. *By file left* (or *right*). 4. MARCH (or *double quick* — MARCH).

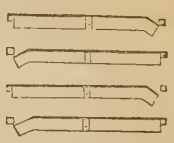
To countermarch a column closed in mass.

(Fig. 71.) If the column be closed in mass, the countermarch will be executed by the commands and means subjoined.

The column being supposed formed by division, right in front, the colonel will command:

1. *Countermarch.* 2. *Battalion, right and left*—FACE. 3. *By file left and right.* 4. MARCH (or *double quick* — MARCH).

At the first command, the chiefs of the odd numbered divisions will caution them to face to the right, and the chiefs of the others to face to the left.



At the second command, the odd divisions will face to the right, and the even to the left; the right and left guides of all the divisions will face about; the chiefs of odd divisions will hasten to their right and cause two files to break to the rear, and each chief place himself on the left of the leading front rank man of his division; the chiefs of even divisions will hasten to their left, and cause two files to break to the rear, and each chief place himself on the right of his leading front rank man.

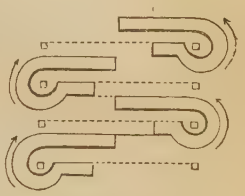
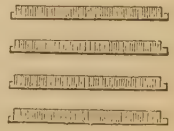


Fig 71.

At the command *march*, all the divisions, each conducted by its chief, will step off smartly, the guides standing fast; each odd division will wheel by file to the left around its right guide; each even division will wheel by file to the right around its left guide, each division so directing its march as to arrive behind its opposite guide, and when its head shall be up with this guide, the chief will halt the division, and cause it to face to the front.



Each division, on facing to the front, will be aligned by its chief

by the right; to this end, the chiefs of the even divisions will move rapidly to the right of their respective divisions.

The divisions being aligned, each chief will command, FRONT; at this, the guides will shift to their proper flanks.

In a column with the left in front, the countermarch will be executed by the same commands and means; but all the divisions will be aligned by the left: to this end, the chiefs of the odd divisions will hasten to the left of their respective divisions as soon as the latter shall have been faced to the front.

Different modes of passing from the order in column to the order in battle.

Manner of determining the line of battle.

322. The line of battle may be marked or determined in three different manners: 1st, by placing two markers eighty or one hundred paces apart, on the direction it is wished to give to the line; 2d, by placing a marker at the point at which it may be intended to rest a flank, and then choosing a second point towards, or beyond the opposite flank, and there posting a second marker distant from each other a little less than the leading subdivision; 3d, by choosing at first the points of direction for the flanks, and then determining, by intermediate points, the straight line between those selected points, both of which may sometimes be beyond reach.

Column at full distance, right in front, to the left into line of battle.

323. A column, right in front, being at a halt, when the colonel shall wish to form it to the left into line, he will assure the positions of the guides by means previously indicated, and then command:

Left into line, wheel. 2. MARCH (or *double quick* — MARCH).

At the first command, the right guide of the leading company will hasten to place himself on the direction of the left guides of the column, face to them, and place himself so as to be opposite to one of the three right files of his company, when they shall be in line: he will be assured in this position by the lieutenant-colonel.

At the command *march*, briskly repeated by the captains, the left

front rank man of each company will face to the left, and rest his breast lightly against the right arm of his guide; the companies will wheel to the left on the principle of wheeling from a halt, conforming themselves to what is prescribed, school of the company: each captain will turn to his company, to observe the execution of the movement, and, when the right of the company shall arrive a three paces from the line of battle, he will command:

1. *Such company.* 2. HALT.

The company being halted, the captain will place himself on the line by the side of the left front rank man of the company next on the right, align himself correctly, and command:

3. *Right* — DRESS.

At this command, the company will dress up between the captain and the front rank man on its left, the captain directing the alignment on that man; the front rank man on the right of the right company, who finds himself opposite to its right guide, will lightly rest his breast against the left arm of this guide.

Each captain, having aligned his company, will command, FRONT, and the colonel will add:

Guides — POSTS.

At this command, the guides will return to their places in line of battle, each passing through the nearest captain's interval; to permit him to pass, the captain will momentarily step before the first file of his company, and the covering sergeant behind the same file. *This rule is general for all the formations into li e of battle.*

When companies form line of battle, file-closers will always place themselves exactly two paces from the rear rank, which will sufficiently assure their alignment.

The battalion being correctly aligned, the colonel, lieutenant-colonel, and major, as well as the adjutant and sergeant-major, will return to their respective places in line of battle. *This rule is general for all the formations into line of battle.*

A column, with the left in front, will form itself *to the right into line of battle,* according to the same principles.

At the command, *guides posts,* the captains will take their places in line of battle as well as the guides. *This rule is general for all formations into line of battle in which the companies are aligned by the left.*

324. A column by division may form itself into line of battle by the same commands and means, observing what follows: if the right be in front, at the command *halt,* given by the chiefs of division, the left guide of each right company will place himself on the alignment opposite to one of the three files on the left of his company; the left guide of the first company will be assured on the direction by the lieutenant-colonel; the left guides of the other right companies will align themselves correctly on the division guides; to this end, the division guides (already on the line) will invert, and hold their pieces up perpendicularly before the centre of their bodies, at the command *left into line wheel.* If the column by division be with the left in front, the right guides of the left companies will conform to what has just been prescribed for the left guides of the right companies.

325. A column in march will be formed into line, without halting, by the same commands and means. At the command *march,* the guides will halt in their places, and the lieutenant-colonel will promptly rectify their positions.

If, in forming the column into line, the colonel should wish to move forward, without halting, he will command:

1. *By companies left wheel.* 2. MARCH (or *double quick*—MARCH.)

At the command *march,* repeated by the captains, each company will wheel to the left on a fixed pivot, as prescribed in the school of the company, the left guides will step back into the rank of file-closers before the wheel is completed, and when the right of the companies shall arrive near the line, the colonel will command:

3. *Forward.* 4. MARCH. 5. *Guide centre.*

At the fourth command, given at the instant the wheel is com-

pleted, the companies will march directly to the front. At the fifth command, the color and the general guides will move rapidly six paces to the front. The colonel will assume the direction of the color; the captains of companies and the men will, at once, conform to the principles of the march in line of battle, to be indicated, No. 343.

By inversion to the right (or *left*) *into line of battle.*

326. When a column, right in front, shall be under the necessity of forming itself into line faced to the reverse flank, and the colonel shall wish to execute this formation by the shortest movement, he will command:

1. *By inversion, right into line, wheel.* 2. *Battalion, guide right.*

At the first command, the lieutenant-colonel will place himself in front, and facing to the right guide of the leading subdivision; at the second command, he will rectify, as promptly as possible, the direction of the right guides of the column; the captain of the odd company, if there be one, and the column be by division, will promptly bring the right of his company on the direction, and at company distance from the division next in front; the left guide of the leading subdivision will place himself on the direction of the right guides, and will be assured in his position by the lieutenant-colonel; which being executed, the colonel will command:

3. MARCH (or *double quick* — MARCH).

At this, the right front rank man of each subdivision will face to the right, rest his breast lightly against the left arm of his guide, and the battalion will form itself to the right into line of battle, according to the principles prescribed.

Successive formations.

327. Under the denomination of successive formations are included all those formations where the several subdivisions of a column arrive one after another on the line of battle; such are formations on the right, or left, forward and faced to the rear into line of battle, as well as deployments of columns in mass.

The successive formations which may be ordered when the column is marching, and is to continue marching, will be executed by a combination of the two gaits, *quick* and *double quick* time.

In all the successive formations, every captain will always observe before dressing his company, to place himself correctly on the line either on the left or right of the company which precedes his in line, and see that his guide has been assured on the direction by the lieutenant-colonel.

Column at full distance, on the right (or *on the left*) *into line of battle.*

328. A column by company, at full distance and right in front, having to form itself on the right into line of battle, the colonel will indicate to the lieutenant-colonel a little in advance, the point of *appui*, or rest, for the right, as well as the point of direction to the left; the lieutenant-colonel will hasten with two markers, and establish them in the following manner on the direction indicated:

The first marker will be placed at the point of *appui* for the right front rank man of the leading company; the second will indicate the point where one of the three left files of the same company will rest when in line; they will be placed so as to present the right shoulder to the battalion when formed.

These dispositions being made, the colonel will command:

1. *On the right, into line.* 2. *Battalion, guide right.*

(Fig. 72.) At the second command, the right will become the directing flank, and the touch of the elbow will be to that side; the right guide of the leading company will march straight forward until up with the turning point, and each following guide will march in the trace of the one immediately preceding.

The leading company being nearly up with the first marker, its captain will command:

1. *Right turn,*

and when the company is precisely up with this marker, he will add:

2. MARCH.

At the command *march*, the company will turn to the right; the right guide will so direct himself as to bring the man next to him opposite to the right marker, and when at three paces from him, the captain will command:

1. *First company;* 2. HALT.

At the second command, the company will halt; the files, not yet in line, will form promptly; the left guide will retire as a file-closer; and the captain will then command:

3. *Right* — DRESS.

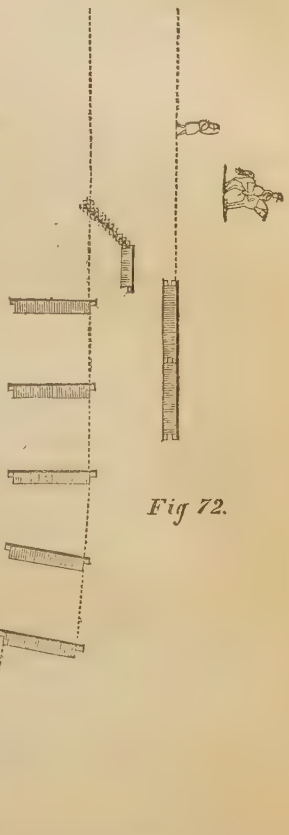


Fig 72.

At this command, the company will align itself; the two men who find themselves opposite to the two markers, will each lightly rest his breast against the right arm of his marker; the captain, passing to the right of the front rank, will direct the alignment on these two men. *These rules are general for all successive formations.*

The second company will continue to march straight forward; when arrived opposite to the left flank of the preceding company, it will turn to the right, and be formed on the line of battle, as has just been prescribed; the right guide will direct himself so as to come upon that line by the side of the man on the left of the first company.

At the distance of three paces from the line of battle, the company will be halted by its captain, who will place himself briskly by the side of the man on the left of the preceding company, and align himself correctly on its front rank.

The left guide will, at the same time, place himself before one

of the three left files of his company, and, facing to the right, he will place himself accurately on the direction of the two markers of the preceding company.

The captain will then command:

Right — DRESS.

At this command, the second company will dress forward on the line; the captain will direct its alignment on the front rank man who has rested his breast against the left guide of the company.

The following companies will thus come successively to form themselves on the line of battle, each conforming itself to what has just been prescribed for the one next to the right; and when they shall all be established, the colonel will command:

Guides — POSTS

At this command, the guides will take their places in line of battle, and the markers placed before the right company will retire.

If the column be marching in quick time, and the colonel should wish to cause the movement to be executed in double quick time, he will add the command:

Double quick — MARCH.

At the command *march*, all the companies will take the double quick step, and the movement will be executed as prescribed above.

The colonel will follow up the formation, passing along the front, and being always opposite the company about to turn: it is thus that he will be the better able to see and correct the error that would result from a command given too soon or too late to the preceding company.

The lieutenant-colonel will, with the greatest care, assure the direction of the guides; to this end, the instant that the markers are established for the leading company, he will move a little beyond the point at which the left of the next company will rest, establish himself correctly on the prolongation of the two markers, and assure the guide of the second company on this direction: this guide being assured, the lieutenant-colonel will place himself farther to the rear,

in order to assure, in like manner, the guide of the third company, and so on, successively, to the left of the battalion. In assuring the guides in their positions on the line of battle, he will take care to let them first place themselves, and confine himself to rectifying their positions if they do not cover accurately, and at the proper distance, the preceding guides or markers. *This rule is general for all successive formations.*

When the direction of the line of battle forms a sensible angle with that of the march of the column, the colonel, before beginning the movement, will give the head of the column a new direction parallel to that line.

A column, left in front, will form itself on the left into line of battle according to the same principles.

Each captain will cause his company to support arms, the instant that the captain, who follows him, shall have commanded *front. This rule is general for all successive formations.*

When, in the execution of this movement, the colonel shall wish to commence firing, he will give the order to that effect to the captain whose company is the first on the line; this captain will immediately place himself behind the centre of his company, and as soon as the next captain shall have commanded *front,* he will commence the fire by file. At the command *fire by file,* the marker at the outer flank of this company will retire, and the other will place himself against the nearest man of the next company. The captain of the latter will commence firing as soon as the captain of the third company, in line, shall have commanded *front;* the marker before the right or left file retiring, and the guide before the opposite flank taking post before the nearest file of the third company, in line; and so on to the last company.

Column at full distance, forward into line of battle.

329. A column being by company, at full distance, right in front, and at a halt, when the colonel shall wish to form it forward into line, he will conform to what is prescribed in the first part of the last number, and then command:

1. *Forward into line.* 2. *By company, left half wheel.* 3. MARCH (or *double quick*—MARCH).

(Fig. 73.) At the first command, the captain of the leading company will add, *guide right*, put the company in march, halt it three paces from the markers, and align it against the latter by the right

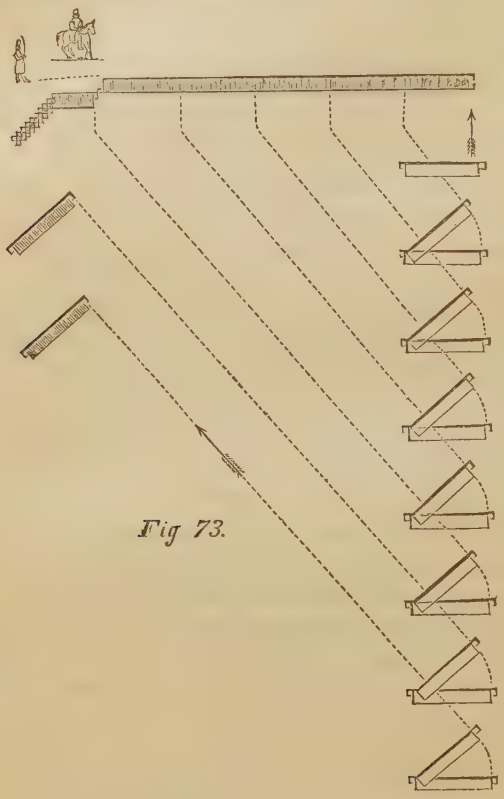


Fig 73.

At the command *march*, all the other companies will wheel to the left on fixed pivots; and, at the instant the colonel shall judge, according to the direction of the line of battle, that the companies have sufficiently wheeled, he will command:

4. *Forward.* 5. MARCH. 6. *Guide right.*

At the fifth command, the companies ceasing to wheel, will march straight forward; and at the sixth, the men will touch elbows towards the right. The right guide of the second company, who is nearest to the line of battle, will march straight forward; each succeeding right guide will follow the file immediately before him at the cessation of the wheel.

The second company having arrived opposite to the left file of the first, its captain will cause it to turn to the right, in order to approach the line of battle; and when its right guide shall be at three paces from that line, the captain will command:

1. *Second company.* 2. HALT.

At the second command, the company will halt; the files not yet in line with the guide will come into it promptly, the left guide will place himself on the line of battle, so as to be opposite to one of the three files on the left of the company; and, as soon as he is assured on the direction by the lieutenant-colonel, the captain, having placed himself accurately on the line of battle, will command:

3. *Right* — DRESS.

At the instant that the guide of the second company begins to turn to the right, the guide of the third ceasing to follow the file immediately before him, will march straight forward; and, when he shall arrive opposite to the left of the second, his captain will cause the company to turn to the right, in order to approach the line of battle, halt it at three paces from that line, and align it by the right, as prescribed for the second company.

Each following company will execute what has just been prescribed for the third, as the preceding company shall turn to the right, in order to approach the line of battle.

The formation ended, the colonel will command:

Guides — POSTS.

The colonel and lieutenant-colonel will observe, in this formation, what is prescribed for them on the right into line.

A column left in front, will form itself forward into line of battle according to the same principles and by inverse means.

330. When a column by company at full distance, right in front, and in march, has arrived at company distance from the two markers established on the line, the colonel will command:

1. *Forward into line.* 2. *By company, left half wheel.* 3. MARCH. (or *double quick* — MARCH).

At the first command, the captain of the first company will command, *Guide right,* and caution it to march directly to the front, the captains of the other companies will caution them to wheel to the left.

At the command *march,* briskly repeated by the captains, the movement will be executed as in the last case.

If the colonel should wish to form the column forward into line, and to continue to march in this order, he will not cause markers to be established; the movements will be executed in *double quick time,* by the same commands and means, observing what follows:

At the first command, the captain of the first company will add *quick time* after the command *guide right.* At the second command, the first company will continue to march in quick time, and will take the touch of elbow to the right; its chief will immediately place himself on its right, and to assure the march, will take points of direction to the front. The captain of the second company will cause his company to take the same gait as soon as it shall arrive on a line with the first, and will also move to the right of his company; the captains of the third and fourth companies will execute in succession what has just been prescribed for the second. The companies will preserve the touch of elbows to the right, until the command, *guide centre.*

When the color company shall have entered the line, the colonel will command, *guide centre.* At this command, the color-bearer and right general guide, will move rapidly six paces in advance of the line. The colonel will assure the direction of the color-bearer, the lieutenant-colonel and right companies will immediately conform to the principles of the march in line of battle. The left companies

and the left general guide, as they arrive in line, will also conform to the same principles.

Column at full distance, faced to the rear, into line of battle.

331. A column being by company, at full distance, right in front, and at a halt, when the colonel shall wish to form it into line faced to the rear, he and the lieutenant-colonel will conform themselves to what is prescribed in the first part of No. 328, and the colonel will then command:

1. *Into line, faced to the rear.* 2. *Battalion, right* — FACE. 3. MARCH (or *double quick* — MARCH).

(Fig. 74.) At the first command, the captain of the leading company will cause it to face to the right, and put it in march, causing it to wheel by file to the left, and direct its march towards the line of battle which it will pass in rear of the left marker; the first file having passed three paces beyond the line, the company will wheel again by file to the left, in order to place itself in rear of the two markers; being in this position, its captain will halt it, face it to the front, and align it by the right against the markers.

At the second command, all the other companies will face to the right, each captain placing himself by the side of his right guide.

At the command *march*, the companies will put themselves in movement; the left guide of the second, who is nearest to the line of battle, will hasten in advance to mark that line; he will place himself on it as prescribed above for successive formations, and thus indicate to his captain the point at which he ought to pass the line of battle, by three paces, in order to wheel by file to the left, and then to direct his company parallelly to that line.

As soon as the first file of this company shall have arrived near the left file of the preceding one already on the line of battle, its captain will command:

1. *Second company.* 2. HALT. 3. FRONT. 4. *Right* — DRESS.

The first command will be given when the company shall yet have four paces to take to reach the halting point.

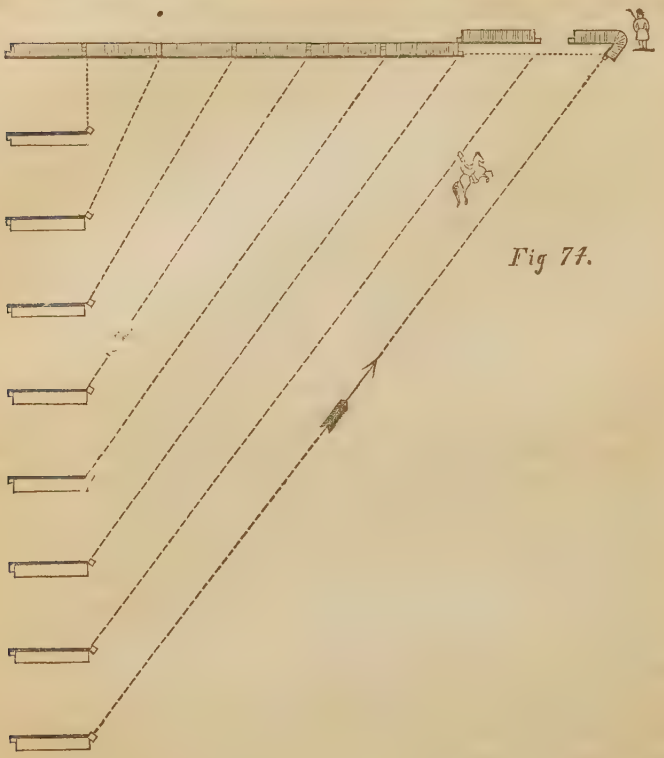


Fig 77.

At the second command, the company will halt.

At the third, the company will face to the front, and if there be openings between the files, the latter will promptly close to the right; the captain will immediately place himself by the side of the man on the left of the preceding company, and align himself on its front rank.

The fourth command will be executed as prescribed, No. 328.

The following companies will be conducted and established on the line of battle as just prescribed for the second, each regulating itself by the one that precedes it; the left guides will detach themselves in time to precede their respective companies on the line by

twelve or fifteen paces, and each place himself so as to be opposite to one of the three left files of his company, when in line. If the movement be executed in double quick time, the moment it is commenced, all the left guides will detach themselves at the same time from the column, and will move at a run, to establish themselves on the line of battle.

The formation ended, the colonel will command:

Guides — POSTS.

The colonel and lieutenant-colonel, in this formation, will each observe what is prescribed for him in that of *on the right, into line of battle.*

A column, left in front, will form itself faced to the rear into line of battle according to the same principles and by inverse means.

332. If the column be in march, and nearly at company distance from the two markers established on the line, the colonel will command:

1. *Into line, faced to the rear.* 2. *Battalion, by the right flank.* 3. MARCH (or *double quick* — MARCH).

At the first command, the captains will caution their companies to face by the right flank.

At the command *march,* briskly repeated by the captains of companies, all the companies will face to the right, and the movement will be completed as in the last case.

Formation in line of battle by two movements.

333. If a column by company, right in front, and at a halt, find itself in part on the line of battle, and the colonel should think proper to form line of battle before all the companies enter the new direction, the formation will be executed as follows:

It will be supposed that the column has arrived behind the line of battle, and that five companies have entered the new direction, the colonel having assured the guides of the first five companies on the direction, will command:

1. *Left into line wheel.* 2. *Three rear companies forward into line.*

At the second command, the chief of each of the rear companies will command: *By company left half-wheel;* and the colonel will add:

3. MARCH (or *double quick*—MARCH).

At this command, repeated by the captains, the first five companies will wheel *to the left into line,* and the last three will execute *forward into line,* by the means prescribed for this formation; each captain of the three rear companies will, when his company shall have sufficiently wheeled, command:

1. *Forward.* 2. MARCH. 3. *Guide right.*

If the column be in march, the colonel will command:

1. *To the left and forward into line.* 2. MARCH (or *double quick*—MARCH).

If the colonel should wish, in forming the battalion into line, to march immediately forward, he will command:

1. *By company to the left, and forward into line.* 2. MARCH.

And when the right of the companies which wheel shall arrive on the line, he will command:

3. *Forward.* 4. MARCH. 5. *Guide centre.*

If the battalion be marching in double quick time, the colonel will cause quick time to be taken before commencing the movement.

334. If, instead of arriving behind, the column should arrive before the line of battle, so that a portion is on the line, and the remaining portion still in front of it, the colonel will command:

1. *Left into line, wheel.* 2. *Three rear companies into line, faced to the rear.*

At the second command, the captain of each of the three rear companies will command:

1. *Such company.* 2. *Right*—FACE.

The colonel will then add:

3. MARCH (or *double quick* — MARCH).

At this command, repeated by the captains, the first five companies will form *to the left into line,* and the three last *into line faced to the rear.*

If the column be in march, the colonel will command:

1. *To the left, and into line faced to the rear.* 2. MARCH (or *double quick* — MARCH).

Different modes of passing from column at half distance into line of battle.

Column at half distance, to the left (or *right*) *into line of battle.*

335. A column at half distance having to form to the left (or right) into line, the colonel will cause it to take distance by the means prescribed, No. 313; which being executed, he will form the column into line to the left or right, No. 323.

If a column by company, at half distance, be in march, and it is necessary to form rapidly into line, the colonel will command:

1. *By the rear of column left* (or *right*) *into line wheel.* 2. MARCH (or *double quick* — MARCH).

At the first command, the right general guide will move rapidly to the front, and place himself a little beyond the point where the head of the column will rest, and on the prolongation of the guides. The captain of the eighth company will command: *Left into line wheel;* the other captains will caution their companies to continue to march to the front. At the command *march,* repeated by the captain of the eighth company, the guide of this company will halt, and the company will wheel to the left, conforming to the principles laid down for wheeling from a halt; when its right shall arrive near the line, the captain will halt the company, and align it to the left. The other captains will place themselves briskly on the flank of the column; when the captain of the seventh sees that there is sufficient distance between his company and the eighth to form the latter into line, he will command: *Left into line wheel* — MARCH;

the left guide will halt, and facing to the rear, will place himself on the line; the company will wheel to the left, the man on the left of the front rank will face to the left, and place his breast against the arm of the guide; the captain will halt the company when its right shall arrive near the line, and will align it to the left. The other companies will conform in succession to what has been prescribed for the seventh. Each captain will direct the alignment of his company on the left man in the front rank of the company next on his right.

The lieutenant-colonel will see that the leading guide marches accurately on the prolongation of the line of battle, and directs himself on the right general guide. The major, placed in rear of the left guide of the eighth company, will, as soon as the seventh company is established on the direction, hasten in rear of the guides of the other companies, so as to assure each of them on the line in succession.

Column at half distance, on the right (or *left*) *into line of battle.*

336. A column at half distance will form itself on the *right* (or *left*) into line, as prescribed for a column at full distance.

Column at half distance, forward, into line of battle.

337. If it be wished to form a column at half distance, forward into line of battle, the colonel will first cause it to close in mass and then deploy it on the leading company.

Column at half distance, into line faced to the rear.

338. A column at half distance will be formed into line of battle, faced to the rear, as prescribed for a column at full distance.

Deployment of columns closed in mass.

339. When a column in mass, by division, arrives behind the line on which it is intended to deploy it, the colonel will indicate, in advance, to the lieutenant-colonel, the direction of the line of battle, as well as the point on which he may wish to direct the column. The lieutenant-colonel will immediately detach himself with two

markers, and establish them on that line, the first at the point indicated, the second a little less than the front of a division from the first.

Deployments will always be made upon lines parallel, and lines perpendicular to the line of battle; consequently, if the head of the column be near the line of battle, the colonel will commence by establishing the direction of the column perpendicularly to that line, if it be not already so. If the column be in march, he will so direct it that it may arrive exactly behind the markers, perpendicularly to the line of battle, and halt it at three paces from that line.

The column, right in front, being halted, it is supposed that the colonel wishes to deploy it on the first division; he will order the left general guide to go to a point on the line of battle a little beyond that at which the left of the battalion will rest when deployed, and place himself correctly on the prolongation of the markers established before the first division.

These dispositions being made, the colonel will command:

1. *On the first division, deploy column.* 2. *Battalion, left*—FACE.

(Fig. 75.) At the first command, the chief of the first division will caution it to stand fast; the chiefs of the three other divisions will remind them that they will have to face to the left.

At the second command, the three last divisions will face to the left; the chief of each division will place himself by the side of its left guide, and the junior captain by the side of the covering sergeant of the left company, who will have stepped into the front rank.

At the same command, the lieutenant-colonel will place a third marker on the alignment of the two first, opposite to one of the three left files of the right company, first division, and then place himself on the line of battle a few paces beyond the point at which the left of the second division will rest.

The colonel will then command:

3. MARCH (or *double quick*—MARCH).

At this command, the chief of the first division will go to its right, and command:

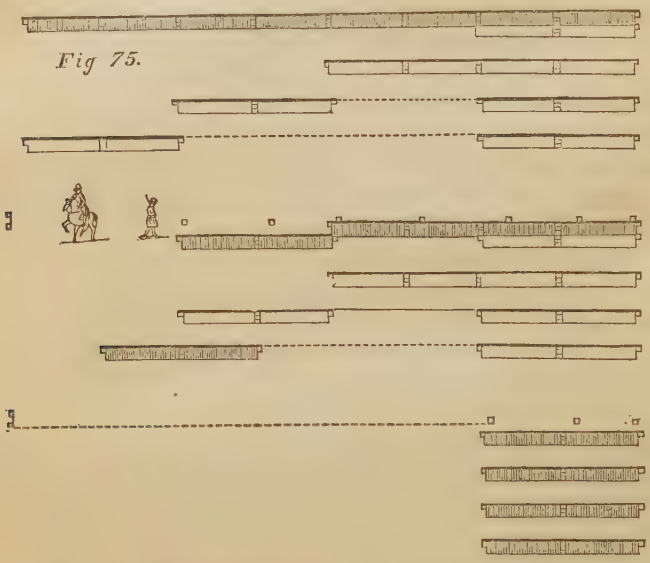
Right — DRESS.

At this, the division will dress up against the markers; the chief of the division, and its junior captain, will each align the company on his left, and then command:

FRONT.

The three divisions, faced to the left, will put themselves in march; the left guide of the second will direct himself parallelly to

Fig 75.



the line of battle; the left guides of the third and fourth divisions will march abreast with the guide of the second; the guides of the third and fourth, each preserving the prescribed distance between himself and the guide of the division which preceded his own in the column.

The chief of the second division will not follow its movement; he will see it file by him, and when its right guide shall be abreast with him, he will command:

1. *Second division.* 2. HALT. 3. FRONT

The first command will be given when the division shall yet have seven or eight paces to march; the second, when the right guide shall be abreast with the chief of the division, and the third immediately after the second.

At the second command, the division will halt; at the third, it will face to the front, and if there be openings between the files, the chief of the division will cause them to be promptly closed to the right; the left guides of both companies will step upon the line of battle, face to the right, and place themselves on the direction of the markers established before the first division, each guide opposite to one of the three left files of his company.

The division having faced to the front, its chief will place himself accurately on the line of battle, on the left of the first division; and when he shall see the guides assured on the direction, he will command:

Right — DRESS.

At this, the division will be aligned by the right in the manner indicated for the first.

The third and fourth divisions will continue to march; at the command *halt*, given to the second, the chief of the third will halt in his own person, place himself exactly opposite to the guide of the second, after this division shall have faced to the front and closed its files; he will see his division file past, and when his right guide shall be abreast with him, he will command:

1. *Third division.* 2. HALT. 3. FRONT.

As soon as the division faces to the front, its chief will place himself two paces before its centre, and command:

1. *Third division, forward.* 2. *Guide right.* 3. MARCH.

At the third command, the division will march towards the line of battle; the right guide will so direct himself as to arrive by the side of the man on the left of the second division, and when the division is at three paces from the line of battle, its chief will halt it and align it by the right.

The chief of the fourth division will conform himself (and the chief of the fifth, if there be a fifth) to what has just been prescribed for the third.

The deployment ended, the colonel will command:

Guides — POSTS.

At this command, the guides will resume their places in line of battle, and the markers will retire.

340. If the column be in march, and the colonel shall wish to deploy it on the first division without halting the column, he will make the necessary dispositions, and when the first division shall have arrived at three paces from the line, he will command:

1. *On the first division, deploy column.* 2. *Battalion by the left flank.* 3. MARCH (or *double quick* — MARCH).

At the first command, the chief of the first division will caution it to halt, and will command, *First division;* the other chiefs will caution their divisions to face by the left flank.

At the command *march*, briskly repeated by the chiefs of the rear divisions, the chief of the first division will command, HALT, and will align his division by the right against the markers; the other divisions will face to the left, their chiefs hastening to the left of their divisions. The second, third, and fourth divisions will execute what is prescribed No. 338; but the chief of each division will halt in his own person at the command *march*, given by the chief of the division which precedes him, and when the right of his division arrives abreast of him, he will command:

Such division by the right flank — MARCH.

If the colonel shall wish to deploy the column without halting it, and to continue the march, the markers will not be posted; the movement will be executed by the same commands and means as the foregoing, but with the following modifications:

At the first command, the chief of the first division will command, 1. *Guide right.* 2. *Quick time.* At the command, *Double quick* — MARCH, given by the colonel, the first division will take

quick time, and touch elbows to the right; the captains will place themselves on the right of their respective companies; the captain on the right of the battalion will take points on the ground to assure the direction of the march. The chief of the second division will allow his division to file past him, and when he sees its right abreast of him, he will command, 1. *Second division by the right flank.* 2. MARCH. 3. *Guide right;* and when this division shall arrive on the alignment of the first, he will cause it to march in quick time. The third and fourth divisions will deploy according to the same principles as the second.

The colonel, lieutenant-colonel, major, and color-bearer, will conform to what is prescribed No. 330.

341. The column being at a halt, if, instead of deploying it on the first, the colonel shall wish to deploy it on the rearmost division, he will cause the dispositions to be made indicated No. 338; but it will be the right general guide whom he will send to place himself beyond the point at which the right of the battalion will rest when deployed.

The colonel will then command:

1. *On the fourth (or such) division, deploy column.* 2. *Battalion, right* — FACE.

(Fig. 76.) At the first command, the chief of the fourth division

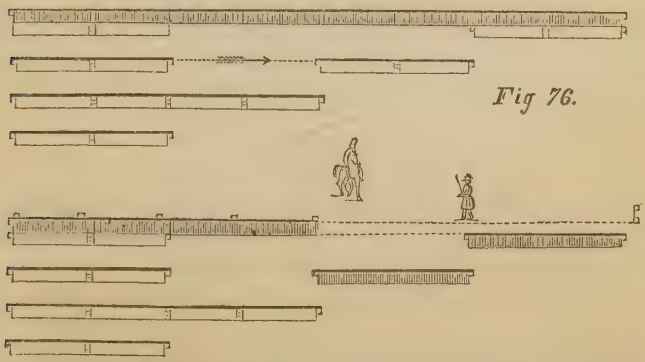


Fig 76.

will caution it to stand fast; the chiefs of the other divisions will caution them that they will have to face to the right.

At the second command, the first three divisions will face to the right; and the chief of each will place himself by the side of its right guide.

At the same command, the lieutenant-colonel will place a third marker between the first two, so that this marker may be opposite to one of the three right files of the left company of the division: the lieutenant-colonel will then place himself on the line of battle a few paces beyond the point at which the right of the third division will rest when deployed.

The colonel will then command:

3. MARCH (or *double quick* — MARCH).

At this command, the three right divisions will put themselves in march, the guide of the first so directing himself as to pass three paces within the line marked by the right general guide. The chief of the third division will not follow its movement; he will see it file past, halt it when its left guide shall be abreast with him, and cause it to face to the front; and if there be openings between the files, he will cause them to be promptly closed to the left.

The chief of the fourth division, when he sees it nearly unmasked by the three others, will command:

1. *Fourth division, forward.* 2. *Guide left.* 3. MARCH.

At the command *march*, which will be given the instant the fourth is unmasked, this division will approach the line of battle, and when at three paces from the markers on that line, its chief will halt it, and command:

Left — DRESS.

At this command, the division will dress forward against the markers; the chief of the division and the junior captain will each align the company on his right, and then command:

FRONT.

The instant that the third division is unmasked, its chief will cause it to approach the line of battle, and halt it in the manner just prescribed for the fourth.

The moment the division halts, its right guide and the covering sergeant of its left company will step on the line of battle, placing themselves on the prolongation of the markers established in front of the fourth division; as soon as they shall be assured in their positions, the divisions will be aligned as has just been prescribed for the fourth.

The second and first divisions which will have continued to march, will, in succession, be halted and aligned by the left, in the same manner as the third; the chiefs of these divisions will conform themselves to what is prescribed, No. 339. The second being near the line of battle, the command will not be given for it to move on this line, but it will be dressed up to it.

The deployment ended, the colonel will command:

Guides — POSTS.

342. To deploy the column on an interior division, the colonel will cause the line to be traced by the means above indicated, and the general guides will move briskly on the line. This being executed, the colonel will command:

1. *On such division, deploy column.* 2. *Battalion outwards*—FACE. 3. MARCH (or *double quick* — MARCH).

(Fig. 77.) Whether the column be with the right or left in front, the divisions which, in the order in battle, belong to the right of

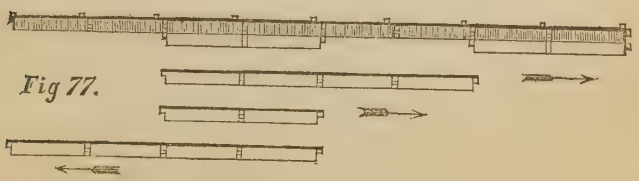


Fig 77.

the directing one, will face to the right; the others, except the directing division, will face to the left.

The directing division, the instant it finds itself unmasked, will approach the line of battle, taking the guide left or right, according as the right or left of the column may be in front. The chief of

this division will align it by the directing flank, and then step back into the rear, in order momentarily to give place to the chief of the next for aligning the next division.

To advance in line of battle.

343. The battalion being correctly aligned, and supposed to be the directing one when the colonel shall wish to march in line of battle, he will give the lieutenant-colonel an intimation of his purpose, place himself about forty paces in rear of the color-file, and face to the front.

The lieutenant-colonel will place himself a like distance in front of the same file, and face to the colonel, who will establish him as correctly as possible, by signal of the sword, perpendicularly to the line of battle opposite to the color-bearer. The colonel will next, above the heads of the lieutenant-colonel and color-bearer, take a point of direction in the field beyond, if a distinct one present itself, exactly in the prolongation of those first two points.

The colonel will then move twenty paces farther to the rear, and establish two markers on the prolongation of the straight line passing through the color-bearer and the lieutenant-colonel; these markers will face to the rear, the first placed about twenty-five paces behind the rear rank of the battalion, and the second at the same distance from the first.

The color-bearer will be instructed to take, the moment the lieutenant-colonel shall be established on the perpendicular, two points on the ground in the straight line which, drawn from himself, would pass between the heels of that officer; the first of these points will be taken at fifteen or twenty paces from the color-bearer.

These dispositions being made, the colonel will command:

1. *Battalion, forward.*

(Fig. 78.) At this, the front rank of the color-guard will advance six paces to the front; the corporals in the rear rank will place themselves in the front rank, and these will be replaced by those in the rank of file-closers; at the same time the two general guides will move in advance, abreast with the color-bearer, the one on the

right, opposite to the captain of the right company, the other opposite to the sergeant who closes the left of the battalion.

The captains of the left wing will shift, passing before the front

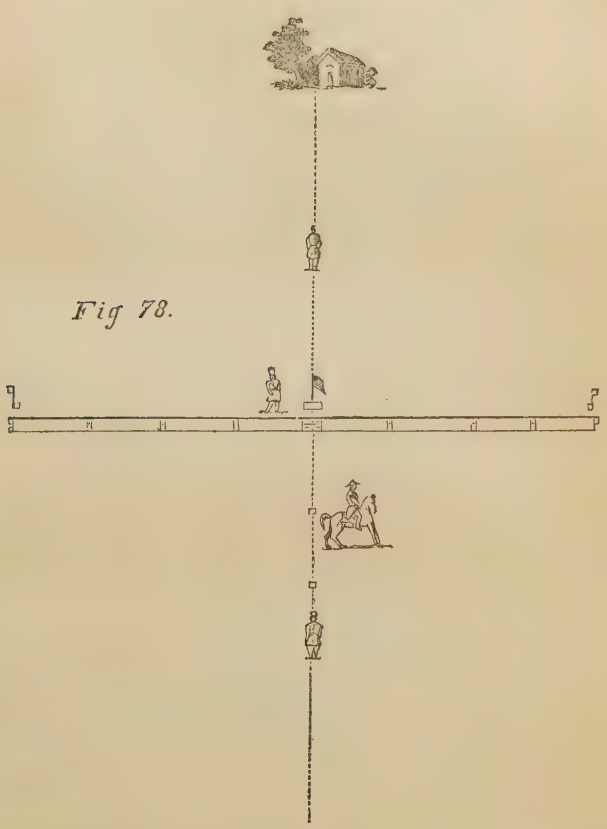


Fig 78.

rank, to the left of their respective companies; the sergeant on the left of the battalion will step back into the rear rank. The covering sergeant of the company next on the left of the color-company, will step into the front rank.

The lieutenant-colonel having assured the color-bearer on the line

between himself and the corporal of the color-file, now in the front rank, will go to the position which will be hereinafter indicated.

The major will place himself six or eight paces on either flank of the color-rank.

The colonel will then command:

2. MARCH (or *double quick* — MARCH).

At this command, the battalion will step off with life; the color-bearer, charged with the step and direction, will scrupulously observe the length and cadence of the pace, marching on the prolongation of the two points previously taken, and successively taking others in advance by the means indicated in the school of the company; the corporal on his right, and the one on his left, will march in the same step, taking care not to turn the head or shoulders, the color-bearer supporting the color-lance against the hip.

The two general guides will march in the same step with the color-rank, each maintaining himself abreast, or nearly so, with that rank, and neither occupying himself with the movement of the other.

The three corporals of the color-guard, now in the front rank of the battalion, will march well aligned, elbow to elbow, heads direct to the front, and without deranging the line of their shoulders; the centre one will follow exactly in the trace of the color-bearer, and maintain the same step, without lengthening or shortening it, except on an intimation from the colonel or lieutenant-colonel, although he should find himself more or less than six paces from the color-rank.

The covering sergeant in the front rank between the color-company and the next on the left, will march elbow to elbow, and on the same line, with the three corporals in the centre, his head well to the front.

The captains of the color-company, and the company next to the left, will constitute, with the three corporals in the centre of the front rank, the basis of alignment for both wings of the battalion; they will march in the same step with the color-bearer, and exert themselves to maintain their shoulders exactly in the square with the direction. To this end, they will keep their heads direct to the

front, only occasionally casting an eye on the three centre corporals, with the slightest possible turn of the neck, and if they perceive themselves in advance, or in rear of these corporals, the captain, or two captains, will, almost insensibly, shorten or lengthen the step, so as, at the end of several paces, to regain the true alignment, without giving sudden checks or impulsions to the wings beyond them respectively.

The lieutenant-colonel, placed twelve or fifteen paces on the right of the captain of the color-company, will maintain this captain and the next one beyond, abreast with the three centre corporals; to this end, he will caution either to lengthen or to shorten the step, as may be necessary, which the captain, or two captains, will execute as has just been explained.

All the other captains will maintain themselves on the prolongation of this basis; and, to this end, they will cast their eyes towards the centre, taking care to turn the neck but slightly, and not to derange the direction of their shoulders.

The captains will observe the march of their companies, and prevent the men from getting in advance of the line of captains; they will not lengthen or shorten step except when evidently necessary; because, to correct, with too scrupulous attention, small faults, is apt to cause the production of greater — loss of calmness, silence, and equality of step, each of which it is so important to maintain.

The men will constantly keep their heads well directed to the front, feel lightly the elbow towards the centre, resist pressure coming from the flank, give the greatest attention to the squareness of shoulders, and hold themselves always very slightly behind the line of the captains, in order never to shut out from the view of the latter the basis of alignment; they will, from time to time, cast an eye on the color-rank, or on the general guide of the wing, in order to march constantly in the same step with those advanced persons.

Pending the march, the line determined by the two markers (*h* and *d*) will be prolonged by placing, in proportion as the battalion advances, a third marker (*i*) in the rear of the first (*h*), then the

marker (*d*) will quit his place and go a like distance in rear of (*i*); the marker (*h*) will, in his turn, do the like in respect to (*d*), and so on, in succession, as long as the battalion continues to advance; each marker, on shifting position, taking care to face to the rear, and to cover accurately the two markers already established on the direction. A staff officer, or the quartermaster-sergeant, designated for the purpose, and who will hold himself constantly fifteen or twenty paces from and facing the marker farthest from the battalion, will caution each marker when to shift place, and assure him on the direction behind the other two.

To halt the battalion, marching in line of battle, and to align it.

344. The battalion, marching in the line of battle, when the colonel shall wish to halt it, he will command:

1. *Battalion.* 2. HALT.

At the second command, the battalion will halt; the color-rank and the general guides will remain in front; but if the colonel should not wish immediately to resume the advance in line, nor to give a general alignment, he will command:

Color and general guides — POSTS.

At this command, the color-rank and general guides will retake their places in line of battle, the captains in the left wing will shift to the right of their companies.

If the colonel should then judge it necessary to rectify the alignment, he will command:

Captains, rectify the alignment.

The captains will immediately cast an eye towards the centre, align themselves accurately, on the basis of the alignment, which the lieutenant-colonel will see well directed, and then promptly dress their respective companies. The lieutenant-colonel will admonish such captains as may not be accurately on the alignment by the command: *Captain of* (such) *company,* or *captains of* (such) *companies, move up or fall back.*

But when the colonel shall wish to give the battalion a general alignment, either parallel or obliqne, instead of rectifying it as above, he will move some paces outside of one of the general guides (the right will here be supposed) and caution the right general guide and the color-bearer to face him, and then establish them by signal of the sword, on the direction which he may wish to give to the battalion. As soon as they shall be correctly established, the left general guide will place himself on their direction, and be assured in his position by the major. The color-bearer will carry the color-lance perpendicularly between his eyes, and the two corporals of his rank will return to their places in the front rank the moment he shall face to the colonel.

This disposition being made, the colonel will command:

1. *Guides* — On the line.

At this command, the right guide of each company in the right wing, and the left guide of each company in the left, will each place himself on the direction of the color-bearer and the two general guides, face to the color-bearer, place himself in rear of the guide who is next before him at a distance equal to the front of his company, and align himself upon the color-bearer and the general guide beyond.

The captains in the right wing will shift to the left of their companies, except the captain of the color-company, who will remain on its right, but step into the rear rank; the captains in the left wing will shift to the right of their companies.

The lieutenant-colonel will promptly rectify, if necessary, the positions of the guides of the right wing, and the major those of the other; which being executed, the colonel will command:

2. *On the centre* — Dress.

At this command, the companies will move up in quick time against the guides, where, having arrived, each captain will align his company according to prescribed principles, the lieutenant-colonel aligning the color-company.

If the alignment be oblique, the captains will take care to conform their companies to it in conducting them towards the line.

The battalion being aligned, the colonel will command:

3. *Color and guides* — POSTS.

At this command, the color-bearer, the general and company guides, and the captains in the right wing, will take their places in the line of battle, and the color-bearer will replace the heel of the color-lance against the right hip.

To march in retreat, in line of battle.

345. The battalion being halted, if it be the wish of the colonel to cause it to march in retreat, he will command:

1. *Face to the rear.* 2. *Battalion, about* — FACE.

At the second command, the battalion will face about; the color-rank, and the general guides, if in advance, will take their places in line; the color-bearer will pass into the rear rank, now leading; the corporal of his file will step behind the corporal next on his own right, to let the color-bearer pass, and then step into the front rank, now rear, to re-form the color-file; the colonel will place himself behind the front rank, become the rear; the lieutenant-colonel and major will place themselves before the rear rank, now leading.

The colonel will take post forty paces behind the color-file, in order to assure the lieutenant-colonel on the perpendicular, who will place himself at a like distance in front, as prescribed for the advance in line of battle.

If the battalion be the one charged with the direction, the colonel will establish markers in the manner indicated, No. 343, except that they will face to the battalion, and that the first will be placed twenty-five paces from the lieutenant-colonel. If the markers be already established, the officer charged with replacing them in succession will cause them to face about, the moment that the battalion executes this movement, and then the marker nearest to the battalion will hasten to the rear of the two others.

These dispositions being made, the colonel will command:

3. *Battalion, forward.*

At this command, the color-bearer will advance six paces beyond the rank of file-closers, accompanied by the two corporals of his guard of that rank, the centre corporal stepping back to let the color-bearer pass; the two file-closers nearest this centre corporal will unite on him behind the color-guard to serve as a basis of alignment for the line of file-closers; the two general guides will place themselves abreast with the color rank, the covering sergeants will place themselves in the line of file-closers, and the captains in the rear rank, now leading; the captains in the left wing, now right, will, if not already there, shift to the left of their companies, now become the right.

The colonel will then command:

4. MARCH (or *double quick* — MARCH).

The battalion will march in retreat on the same principles which govern the advance in line.

To halt the battalion marching in retreat, and to face it to the front.

346. The colonel having halted the battalion, and wishing to face it to the front, will command:

1. *Face to the front.* 2. *Battalion, about* — FACE.

At the second command, the color-rank, general guides, captains, and covering sergeants, will all retake their habitual places in line of battle, and the color-bearer will repass into the front rank.

347. The battalion marching in line of battle by the front rank, when the colonel shall wish to march it in retreat, he will command:

1. *Battalion, right about.* 2. MARCH.

At the command *march*, the battalion will face to the rear and move off at the same gait by the rear rank. If the colonel should wish the battalion to march again by the front, he will give the same commands.

Passage of obstacles, advancing and retreating.

348. The battalion advancing in line will be supposed to encounter an obstacle which covers one or more companies; the colonel will cause them to ploy into column at full distance, in rear of the next company towards the color, which will be executed as follows: It will be supposed that the obstacle only covers the third company, the colonel will command:

Third company, obstacle.

At this command, the captain of the third company will place himself in its front, turn to it, and command, 1. *Third company, by the left flank, to the rear into column.* 2. *Double quick.* 3. MARCH. He will then hasten to the left of his company.

At the command *march*, the company will face to the left in marching; the two left files will promptly disengage to the rear in double quick time; the left guide, placing himself at the head of the front rank, will conduct it behind the fourth company, directing himself parallelly with this company; the captain of the third will himself halt opposite to the captain of the fourth, and see his company file past; when its right file shall be nearly up with him, he will command, 1. *Third company.* 2. *By the right flank.* 3. MARCH. 4. *Guide right*, and place himself before the centre of the company.

At the command *march*, the company will face to the right, preserving the gait, but the moment it shall be at the prescribed distance, the captain will command:

1. *Quick time.* 2. MARCH.

This company will follow in column that behind which it finds itself, and at wheeling distance, its right guide marching exactly in the trace of the captain of that company.

As soon as the third company shall have faced to the left, the left guide of the second will place himself on the left of the front rank of his company, and maintain between himself and the right

of the fourth, the space necessary for the return into line of the third.

The obstacle being passed, the colonel will command:

Third company, forward into line.

At this command, the captain, turning to his company, will add:

1. *By company, right half wheel.* 2. *Double quick.* 3. MARCH.

At the command *march,* the company will take the double quick step and execute a half wheel; its captain will then command:

1. *Forward.* 2. MARCH. 3. *Guide left.*

At the command *march,* the company will direct itself straight forward towards the line, and retake its position in it according to the principles prescribed for the formation forward into line.

349. It will be supposed that the obstacle covers several contiguous companies (the three companies on the right for example), the colonel will command:

1. *Three right companies, obstacle.* 2. *By the left flank, to the rear, into column.* 3. *Double quick.* 4. MARCH.

At the first command, the captains of the designated companies will each place himself before the centre of his company, and caution it that it has to face to the left.

At the command *march,* the designated companies will face to the left in marching, and immediately take the double quick step; each captain will cause the head of his company to disengage itself to the rear, and the left guide will place himself at the head of the front rank; the captain of the third company will conform to what has been prescribed for him in the last number; the captains of the other companies will conduct their companies by the flank in rear of the third, inclining towards the head of the column; and, as the head of each company arrives opposite to the right of the one next before it in column, its captain will halt, see his company file past him, face it by the right flank, take guide right, and place himself before its centre.

When the last company in column shall have passed the obstacle, the colonel will command:

1. *Three right companies, forward into line.*

At this command, the captain of each of these three companies will command: *By company, right half wheel.* The colonel will then add:

1. *Double quick.* 2. MARCH.

At this briskly repeated by the captains of the three companies, each company will execute the movement on the principles laid down in the movement of forward into line without halting.

350. If the companies belong to the left wing, they will execute the passage of an obstacle according to the same principles, but by inverse means.

If the battalion is marching at double quick, and it becomes necessary to break off several companies in the passage of an obstacle, the colonel will first bring it to march in quick time.

When the color company shall be obliged to execute the movement of passing an obstacle, the color rank will return into line the moment the company shall face to the right or left; the major will place himself six paces before the extremity of the company behind which the color company marches in column, in order to give the step and the direction; he, himself, first taking the step from the battalion.

To pass a defile, in retreat, by the right or left flank.

351. When a battalion, retiring in line, shall encounter a defile which it must pass, the colonel will halt the battalion and face it to the front.

It will be supposed that the defile is in rear of the left flank, and that its width is sufficient to give passage to a column by platoon; the colonel will place a marker fifteen or twenty paces in rear of the file-closers at the point around which the companies will have to change direction in order to enter the defile; he will then command:

To the rear, by the right flank, pass the defile.

The captain of the first company will immediately command:

1. *First company, right* — FACE. 2. MARCH (or *double quick* — MARCH).

At the command *march*, the first company will commence the movement; the first file will wheel to the right, march to the rear till it shall have passed four paces beyond the file closers, when it will wheel again to the right, and then direct itself straight forward towards the left flank. All the other files of this company will wheel in succession at the same place where the first had wheeled.

The second company will, in its turn, execute the movement, by the commands of its captain, who will give the command *march*, so that the first file of his company may immediately follow the last of the first, without constraint; the first file of the second company will wheel to the right on its ground; all the other files of this company will, in succession, wheel at the same place. The following companies will execute, each in its turn, what has just been prescribed for the second.

When the whole of the second company shall be on the same direction with the first, the captain of the first will cause it to form, by platoon, into line, and the moment that it is in column, the guide of the first platoon will direct himself on the marker around whom he has to change direction in order to enter the defile.

The second company will continue to march by the flank, directing itself parallelly with the line; and it, in its turn, will form by platoon into line, when the third company shall be wholly on the same direction with itself. The following companies will execute in succession what has just been prescribed for the second.

The first platoon of the leading company having arrived opposite to the marker placed at the entrance of the defile, will turn to the left, and the following platoons will all execute the same movement at the same point. As the last company will not be able to form platoons before reaching the defile, they will so direct themselves, in entering it, as to leave room to the left for this movement.

The battalion will thus pass the defile by platoon; and, as the two platoons of each company shall clear it, companies will be formed.

The head of the column having cleared the defile, and having reached the distance at which the colonel wishes to re-form the line faced to the defile, he may cause the leading company to turn to the left, to prolong the column in that direction, and then form it to the left into line of battle; or he may halt the column, and form it into line faced to the rear.

If the defile be in rear of the right flank, it will be passed by the left; the movement will be executed according to the same principles, and by inverse means.

If the defile is too narrow to receive the front of a platoon, it will be passed by the flank.

To march by the flank.

352. The colonel, wishing the battalion to march by the flank, will command:

1. *Battalion.* 2. *Right*[1] (or *left*) — FACE. 3. *Forward.* 4 MARCH (or *double quick* — MARCH).

At the second command, the captains and covering sergeants will place themselves as prescribed in the school of the company.

The sergeant on the left of the battalion will place himself to the left and by the side of the last file of his company, covering the captains in file.

The battalion having to face by the left flank, the captains, at the second command, will shift rapidly to the left of their companies, and each place himself by the side of the covering sergeant of the company preceding his own, except the captain of the left company, who will place himself by the side of the sergeant on the left of the battalion. The covering sergeant of the right company will place himself by the right side of the front rank man of the rearmost file of his company, covering the captains in file.

At the command *march*, the battalion will step off with life; the sergeant, placed before the leading file (right or left in front), will be careful to preserve exactly the length and cadence of the step,

[1] Or, *In two ranks — right* — FACE.

and to direct himself straight forward; to this end, he will take points on the ground.

Whether the battalion march by the right or left flank, the lieutenant-colonel will place himself abreast with the leading file, and the major abreast with the color-file, both on the side of the front rank, and about six paces from it.

The adjutant, placed between the lieutenant-colonel and the front rank, will march in the same step with the head of the battalion, and the sergeant major, placed between the major and the color-bearer, will march in the same step with the adjutant.

The captains and file-closers will carefully see that the files neither open out, nor close too much, and that they regain insensibly their distances, if lost.

353. The colonel wishing the battalion to wheel by file, will command:

1. *By file right* (or *left*). 2. MARCH.

The files will wheel in succession, and all at the place where the first had wheeled, in conforming to the principles prescribed in the school of the company.

The battalion marching by the flank, when the colonel shall wish it to halt, he will command:

1. *Battalion.* 2. HALT. 3. FRONT.

These commands will be executed as prescribed in the school of the company.

If the battalion be marching by the flank, and the colonel should wish to cause it to march in line, either to the front or to the rear, the movements will be executed by the commands and means prescribed in the school of the company.

To form the battalion on the right or left, by file, into line of battle

354. The battalion marching by the right flank, when the colonel shall wish to form it on the right by file, he will determine the line of battle, and the lieutenant-colonel will place two markers on that line, in conformity with what is prescribed No. 327.

The head of the battalion being nearly up with the first marker, the colonel will command:

1. *On the right, by file, into line.* 2. MARCH (or *double quick*—MARCH).

At the command *march*, the leading company will form itself on the right, by file, into line of battle, as indicated in the school of the company, No. 240; the front rank man of the first file will rest his breast lightly against the right arm of the first marker; the other companies will follow the movement of the leading company; each captain will place himself on the line at the same time with the front rank man of his first file, and on the right of this man.

The left guide of each company, except the leading one, will place himself on the direction of the markers, and opposite to the left file of his company, at the instant that the front rank man of this file arrives on the line.

The formation being ended, the colonel will command:

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The colonel will superintend the successive formation of the battalion, moving along the front of the line of battle.

The lieutenant-colonel will, in succession, assure the direction of the guides, and see that the men of the front rank, in placing themselves on the line, do not pass it.

Changes of front.

Change of front perpendicularly forward.

355. The battalion being in line of battle, it is supposed to be the wish of the colonel to cause a change of front forward on the right company, and that the angle formed by the old and new positions be a right angle, or a few degrees more or less than one; he will cause two markers to be placed on the new direction, before the position to be occupied by that company, and order its captain to establish it against the markers.

The captain of the right company will immediately direct it upon

the markers by a wheel to the right on the fixed pivot; and after having halted it, he will align it by the right.

These dispositions being made, the colonel will command:

1. *Change front forward on first company.* 2. *By company, right half wheel.* 3. MARCH (or *double quick* — MARCH).

(Fig. 79). At the second command, each captain will place himself before the centre of his company.

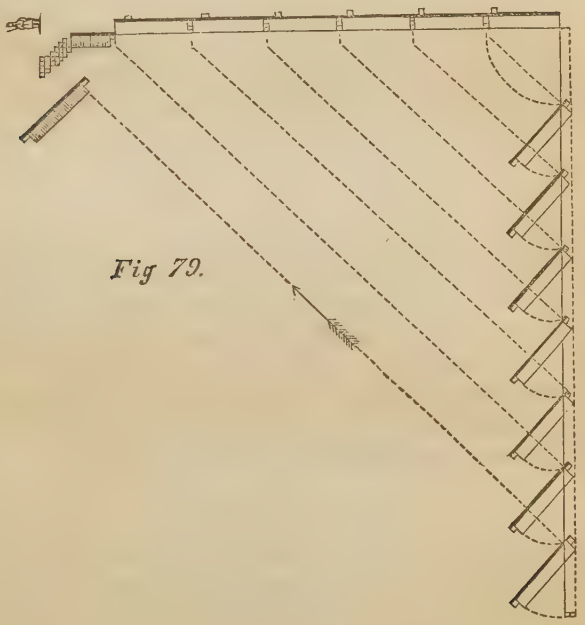

Fig 79.

At the third, each company will wheel to the right on the fixed pivot; the left guide of each will place himself on its left as soon as he shall be able to pass; and when the colonel shall judge that the companies have sufficiently wheeled, he will command:

4. *Forward.* 5. MARCH. 6. *Guide right.*

At the fifth command, the companies ceasing to wheel will march straight forward; at the sixth, the men will touch elbows towards the right.

The right guide of the second company will march straight forward until this company shall arrive at the point where it should turn to the right; each succeeding right guide will follow the file immediately before him at the cessation of the wheel, and will march in the trace of this file until this company shall turn to the right to move upon the line; this guide will then march straight forward.

The second company having arrived opposite to the left file of the first, its captain will cause it to turn to the right; the right guide will direct himself so as to arrive squarely upon the line of battle, and when he shall be at three paces from that line, the captain will command:

1. *Second company.* 2. HALT.

At the second command, the company will halt; the files not yet in line with the guide will come into it promptly, the left guide will place himself on the line of battle, and as soon as he is assured in the direction by the lieutenant-colonel, the captain will align the company by the right.

Each following company will conform to what has just been prescribed for the second.

The formation ended, the colonel will command:

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356. If the battalion be in march, and the colonel shall wish to change front forward on the first company, and that the angle formed by the old and new positions be a right angle, he will cause two markers to be placed on the new direction, before the position to be occupied by that company, and will command:

1. *Change front forward on first company.* 2. *By company, right half wheel.* 3. MARCH (or *double quick* — MARCH).

At the first command, the captains will move rapidly before the centre of their respective companies; the captain of the first com-

pany will command, 1. *Right turn.* 2. *Quick time;* the captains of the other companies will caution them to wheel to the right.

At the command *march,* the first company will turn to the right according to the principles prescribed in the school of the soldier, its captain will halt it at three paces from the markers, and the files in rear will promptly come into line. The captain will align the company by the right.

Each of the other companies will wheel to the right on a fixed pivot; the left guides will place themselves on the left of their respective companies, and when the colonel shall judge they have wheeled sufficiently, he will command:

4. *Forward.* 5. MARCH. 6. *Guide right.*

The colonel will cause the battalion to change front forward on the eighth company according to the same principles and by inverse means.

Change of front perpendicularly to the rear.

357. The colonel, wishing to change front to the rear on the right company, will impart his purpose to the captain of this company. The latter will immediately face his company about, wheel it to the left on the fixed pivot, and halt it when it shall be in the direction indicated to him by the colonel: the captain will then face his company to the front, and align it by the right against the two markers, whom the colonel will cause to be established before the right and left files.

These dispositions being made, the colonel will command:

1. *Change front to the rear, on first company.* 2. *Battalion, about* —FACE. 3. *By company, left half wheel.* 4. MARCH (or *double quick* — MARCH).

(Fig. 80.) At the second command, all the companies, except the right, will face about.

At the third, the captains, whose companies have faced about, will each place himself behind the centre of his company, two paces from the front rank, now the rear.

At the fourth, these companies will wheel to the left on the fixed

pivot by the rear rank; the left guide of each will, as soon as he is able to pass, place himself on the left of the rear rank of his com-

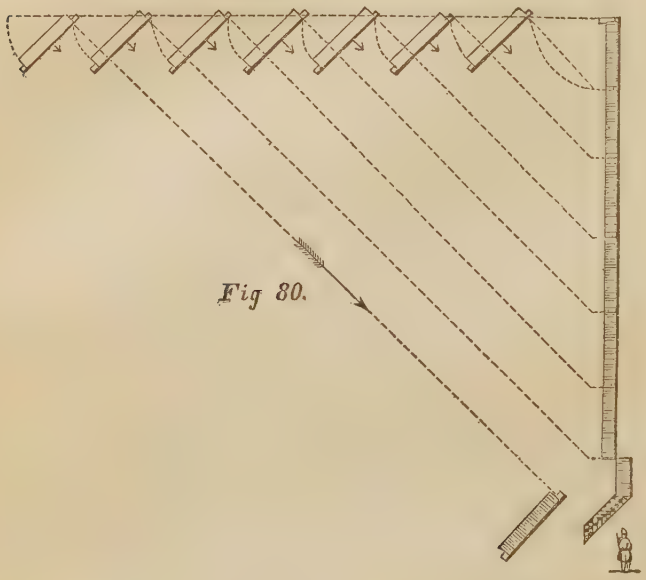

Fig 80.

pany, now become the right; and when the colonel shall judge that the companies have sufficiently wheeled, he will command:

5. *Forward.* 6. MARCH. 7. *Guide left.*

At the sixth command, the companies will cease to wheel, march straight forward towards the new line of battle, and, at the seventh, take the touch of the elbow towards the left.

The second company, from the right, having arrived opposite to the left of the first, will turn to the left; the guide will so direct himself as to arrive parallelly with the line of battle, cross that line, and when the front rank, now in the rear, shall be three paces beyond it, the captain will command: 1. *Second company.* 2. HALT.

At the second command, the company will halt; the files which may not yet be in line with the guide, will promptly come into it;

the captain will cause the company to face about, and then align it by the right.

All the other companies will execute what has just been prescribed for the second, each as it successively arrives opposite to the left of the company that precedes it on the new line of battle.

The formation being ended, the colonel will command:

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The colonel will cause a change of front on the left company of the battalion to the rear, according to the same principles and by inverse means.

To ploy the battalion into column doubled on the centre.

358. This movement consists in ploying the corresponding companies of the right and left wings into column at company distance, or closed in mass in rear of the two centre companies.

The colonel, wishing to form the double column at company distance, (the battalion being in line of battle,) will command:

1. *Double column, at half distance.* 2. *Battalion, inwards* — FACE. 3. MARCH (or *double quick* — MARCH).

(Fig. 81.) At the first command, the captains will place themselves two paces in front of their respective companies; the captains of the two centre companies will caution them to stand fast, and the other captains will caution their companies to face to the left and right respectively. The covering sergeants will step into the front rank.

At the second command, the fourth and fifth companies will stand fast; the others of the right wing will face to the left, and the others of the left wing will face to the right; each captain whose company has faced, will hasten to break to the rear the two files at the head of his company; the left guide of each right company, and the right guide of each left company, will each place himself at the head of its front rank, and the captain by the side of his guide.

At the command *march*, the fourth and fifth companies, which

are to form the first division, will stand fast; the senior captain of the two will place himself before the centre of the division, and command: *Guide right;* the junior captain will place himself in

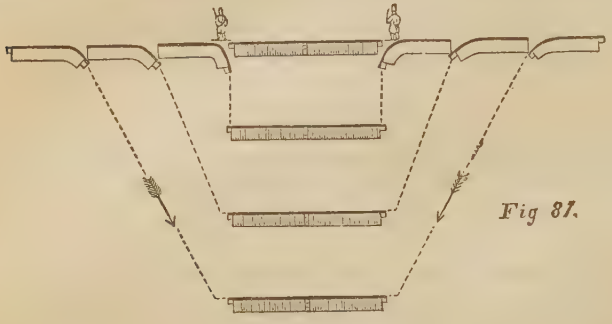
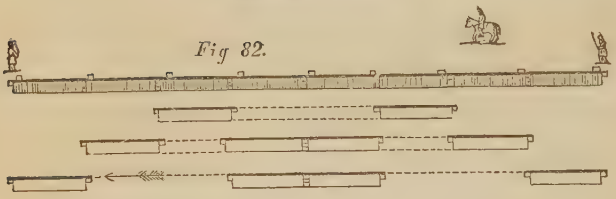


Fig 81.

Fig 82.



the interval between the two companies, and the left guide of the left company will place himself in the front rank on the left of the division, as soon as he shall be able to pass.

All the other companies, conducted by their captains, will step off with life to arrange themselves in column at company distance, each company behind the preceding one in the column of the same wing, so that, in the right wing, the third may be next behind the fourth, the second next to the third, and so on to the right company; and, in the left wing, the sixth may be next behind the fifth, the seventh next to the sixth, and so on to the left company of the battalion.

The corresponding companies of the two wings will unite into divisions in arranging themselves in column; an instant before the union, at the centre of the column, the left guides of right compa-

nies will pass into the line of file-closers, and each captain will command: 1. *Such company.* 2. *Halt.* 3. FRONT.

At the second command, which will be given at the instant of union, each company will halt; at the third, it will face to the front The senior captain in each division will place himself on its right, and command, *Right* — DRESS, and the junior captain will place himself in the interval between the two companies. The division being aligned, its chief will command, FRONT, and take his position two paces before its centre.

The column being thus formed, the divisions will take the respective denominations of *first, second, third,* etc., according to position in the column, beginning at the front.

The lieutenant-colonel, who, at the second command given by the colonel, will have placed himself at a little more than company distance in rear of the right guide of the first division, will assure the right guides on the direction as they successively arrive, by placing himself in their rear.

The music will pass to the rear of the column.

359. The battalion being in march, to form the double column at company distance without halting the battalion, the colonel will command:

1. *Double column at half distance.* 2. *Battalion by the right and left flanks.* 3. MARCH (or *double quick* — MARCH).

At the first command, each captain will move briskly in front of the centre of his company; the captains of the fourth and fifth will caution their companies to march straight forward; the other captains will caution their companies to face to the right and left.

At the command *march,* the fourth and fifth companies will continue to march straight forward; the senior captain will place himself before the centre of his division and command, *Guide right;* the junior captain will place himself in the interval between the two companies. The left guide of the fifth company will place himself on the left of the front rank of the division. The men will take the touch of elbows to the right. The color and general guides will retake their places. The three right companies will face to the left,

and the three left companies will face to the right. Each captain will break to the rear two files at the head of his company; the left guides of the right companies, and the right guides of the left companies, will each place himself at the head of the front rank of his company, and the captain by the side of his guide.

The third and sixth companies will enter the column and direct themselves parallelly to the first division. Each of the other companies will, in like manner, place itself behind the company of the wing to which it belongs, and will be careful to gain as much ground as possible towards the head of the column.

The corresponding companies of each wing will unite into divisions on taking their positions in column, and each captain, the instant the head of his company arrives at the centre of the column, will command: 1. *Such company by the right* (or *left*) *flank.* 2. MARCH. The senior captain of the two companies will place himself in front of the centre of his division, and command, *Guide right;* the junior captain will place himself in the interval between the two companies. The two companies thus formed into a division will take the touch of elbows to the right, and when each division has gained its proper distance, its chief will cause it to march in quick time.

The double column, closed in mass, will be formed according to the same principles and by the same commands, substituting the indication, *closed in mass,* for that of *at half distance.*

Deployment of the double column, faced to the front.

360. The colonel wishing to deploy the double column, will place a marker respectively before the right and left files of the first division, and a third before the left file of the right company, same division; which being done, he will cause the two general guides to spring out on the alignment of the markers a little beyond the points at which the respective flanks of the battalion ought to rest; he will then command:

1. *Deploy column.* 2. *Battalion outwards* — FACE. 3. MARCH (or *double quick* — MARCH).

(Fig. 82.) The column will deploy itself on the two companies at

its head, according to the principles prescribed for the deployment of columns in mass. The captain of these companies will each, at the command *march*, place himself on the right of his own company, and align it by the right; the captain of the fourth will then place himself in the rear rank, and the covering sergeant in the rank of file-closers, at the moment the captain of the third shall come to its left to align it.

The deployment being ended, the colonel will command:

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361. The battalion being in double column and in march, if the colonel shall wish to deploy it without halting the column, he will cause three markers to be posted on the line of battle, and when the head of the column shall arrive near the markers, he will command: 1. *Deploy column. Battalion, by the right and left flanks.* 3. MARCH (or *double quick* — MARCH). The column will deploy on the two leading companies, according to the principles prescribed for the deployment of a close column; at the command *march*, the chief of the first division will halt it, and the captains of the fourth and fifth companies will align their companies by the right.

362. If the column be in march, and it is the wish of the colonel to deploy the column, and to continue on the march in line of battle, he will not cause markers to be established at the head of the column. At the first command, the chief of the first division will command, *Quick time;* at the command *march*, the first division will continue to march in quick time; the colonel will command, *Guide centre.* The captains of the fourth and fifth companies, the color, and the men, will immediately conform to the principles of the march in line. The companies will take the quick step by the command of their captains, as they successively arrive in line. The movement completed, the colonel may cause the battalion to march in double quick time.

To form the double column into line of battle, faced to the right or left.

363. The double column being at company distance, and at a

halt, may be formed into line faced to the right or left; when the colonel shall wish to form it faced to the right, he will command:

1. *Right into line wheel, left companies on the right into line.* 2. *Battalion, guide right.* 3. MARCH (or *double quick* — MARCH).

At the first command, each captain will place himself before the centre of his company; the right companies will be cautioned that they have to wheel to the right, the left companies that they will have to move straight forward.

At the second command, the left guide of the fourth company will place himself briskly on the direction of the right guides of the column, face to them, and opposite to one of the three last files of his company when in line; the lieutenant-colonel will assure him in that position.

At the command *march,* briskly repeated by the captains, the right companies will form *to* the right into line, the left companies will put themselves in march in order to form *on* the right into line; the lieutenant-colonel will assure the guides of the left wing on the line as they in succession come upon it.

Dispositions against Cavalry.

364. A battalion being in column by company, at full distance, right in front, and at a halt, when the colonel shall wish to form it into square, he will first cause divisions to be formed; which being done, he will command:

1. *To form square.* 2. *To half distance, close column.* 3. MARCH (or *double quick* — MARCH).

(Fig. 83.) At the command *march,* the column will close to company distance, the second division taking its distance from the rear rank of the first division.

At the moment of halting the fourth division, the file-closers of each company of which it is composed, passing by the outer flank of their companies will place themselves two paces before the front rank opposite to their respective places in line of battle, and face towards the head of the column.

At the commencement of the movement, the major will place himself on the right of the column abreast with the first division;

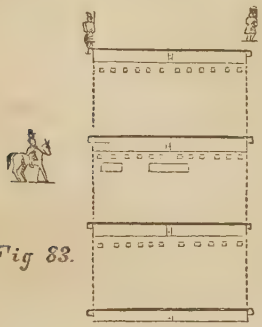

Fig 83.

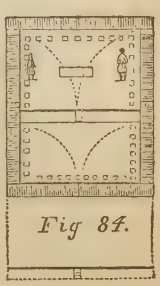

Fig 84.

the buglers formed in two ranks will place themselves at platoon distance, behind the inner platoons of the second division.

These dispositions being made, the colonel may, according to circumstances, put the column in march, or cause it to form square; if he wish to do the latter, he will command:

1. *Form square.* 2. *Right and left into line, wheel.*

(Fig. 84.) At the first command, the lieutenant-colonel, facing to the left guides, and the major, facing to those of the right, will align them, from the front, on the respective guides of the fourth division, who will stand fast, holding up their pieces, inverted, perpendicularly; the right guides, in placing themselves on the direction, will take their exact distances.

At the second command, the chief of the first division will caution it to stand fast; all the captains of the second and third divisions will place themselves before the centres of their respective companies, and caution them that they will have to wheel, the right companies to the right, and the left companies to the left into line of battle.

The color-bearer will step back into the line of file-closers, opposite to his place in line of battle, and will be replaced by the corporal

of his file, who is in the rear rank; the corporal of the same file who is in the rank of file-closers will step into the rear rank.

The chief of the fourth division will command: 1. *Fourth division, forward;* 2. *Guide left,* and place himself at the same time two paces outside of its left flank.

These dispositions ended, the colonel will command:

MARCH (or *double quick* — MARCH).

At this command, briskly repeated, the first division will stand fast; but its right file will face to the right, and its left file to the left.

The companies of the second and third divisions will wheel to the right and left into line, and the buglers will advance a space equal to the front of a company.

The fourth division will close up to form the square, and when it shall have closed, its chief will halt it, face it about, and align it by the rear rank upon the guides of the division, who will, for this purpose, remain faced to the front. The junior captain will pass into the rear rank, now become the front, and the covering sergeant of the left company will place himself behind him in the front rank, become rear. The file-closers will, at the same time, close up a pace on the front rank, and the outer file on each flank of the division will face outwards.

The square being formed, the colonel will command:

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At this command, the chiefs of the first and fourth divisions, as well as the guides, will enter the square.

The captains whose companies have formed to the right into line, will remain on the left of their companies; the left guide of each of those companies will, in the rear rank, cover his captain, and the covering sergeant of each will place himself as a file-closer behind the right file of his company.

The field and staff will enter the square, the lieutenant-colonel placing himself behind the left, and the major behind the right of the first division.

If the battalion present ten, instead of eight companies, the fourth division will make the movements prescribed above for the second and third divisions, and the fifth, the movements prescribed for the fourth division.

The fronts of the square will be designated as follows: the first division will always be the *first front;* the last division, the *fourth front;* the right companies of the other divisions will form the *second front;* and the left companies of the same divisions the *third front.*

365. If the battalion, before the square is formed, be in double column, the two leading companies will form the first front, the two rear companies the fourth; the other companies of the right half battalion will form the second, and those of the left half battalion the third front.

The first and fourth fronts will be commanded by the chiefs of the first and fourth divisions; each of the other two by its senior captain. The commander of each front will place himself four paces behind its present rear rank, and will be replaced momentarily in the command of his company by the next in rank therein.

366. If the column by division, whether double or single, be in mass, and the colonel shall wish to form it into square, he will first cause it to take company distance; to this effect, he will command:

1. *To form square.* 2. *By the head of column, take half distance.*

The colonel will halt the column the moment the third division shall have its distance, and as soon as the necessary dispositions are made, form it into square.

367. The battalion being formed into square, when the colonel shall wish to cause it to advance a distance less than thirty paces, he will command:

1. *By* (such) *front, forward.* 2. MARCH.

If it be supposed that the advance be made by the first front, the chief of this front will command:

1. *First front, forward.* 2. *Guide centre.*

The chief of the second front will face his front to the left. The

captains of the companies composing the front will place themselves outside, and on the right of their left guides, who will replace them in the front rank; the chief of the third front will face his front to the right, and the captains in this front will place themselves outside, and on the left of their covering sergeants; the chief of the fourth front will face his front about, and command: 1. *Fourth front, forward.* 2. *Guide centre.* The captain who is in the centre of the first front, will be charged with the direction of the march.

At the command *march,* the square will put itself in motion; the companies marching by the flank will be careful not to lose their distances. The chief of the fourth division will cause his division to keep constantly closed on the flanks of the second and third fronts.

This movement will only be executed in quick time.

The lieutenant-colonel will place himself in rear of the file of direction, in order to regulate his march.

If the colonel should wish to halt the square, he will command:

1. *Battalion.* 2. HALT.

At the second command, the square will halt; the fourth front will face about immediately, and without further command; the second and third fronts will face outward; the captains of the companies will resume their places in square.

In moving the square forward by the second, third, or fourth fronts, the same rule will be observed.

368. The battalion being formed into square, when the colonel shall wish to cause it to advance, he will command:

1. *Form column.*

The chief of the first front will command:

1. *First division forward.* 2. *Guide left.*

The commander of the fourth front will caution it to stand fast; the commander of the second front will cause it to face to the left, and then command: *By company, by file left.* The commander of the third front will cause it to face to the right, and then command:

By company, by file right. At the moment the second and third fronts face to the left and right, each captain will cause to break to the rear the two leading files of his company.

These dispositions being made, the colonel will command:

3. MARCH (or *double quick*—MARCH).

At this command, the first front will march forward; its chief will halt it when it shall have advanced a space equal to half its front, and align it by the left.

The corresponding companies of the second and third fronts will wheel by file to the left and right, and march to meet each other behind the centre of the first division, and the moment they unite, the captain of each company will halt his company and face it to the front. The division being re-formed, its chief will align it by the left.

The commander of the fourth front will cause it to face about: its file-closers will remain before the front rank.

The column being thus re-formed, the colonel may put it in march; the right guides will preserve company distance exactly as the directing guides.

When the colonel shall wish to re-form square, he will give the necessary commands.

369. To cause the square to march in retreat, the colonel will first cause column to be formed, and, when formed, he will cause it to face by the rear rank; to this end, he will command:

1. *To march in retreat.* 2. *Face by the rear rank.* 3. *Battalion about*—FACE.

(Fig. 85.) At the second command, the file-closers of the interior divisions will place themselves, passing by the outer flanks of their respective companies, behind the front rank opposite to their places in line of battle; the file-closers of the other divisions will stand fast.

At the third command, the battalion will face about; each chief of division will place himself before its rear rank, become front, passing through the interval between its two companies; the guides will step into the rear rank, now front.

The column being thus disposed, the colonel may put it in march, or cause it to form square as if it were faced by the front rank. The square being formed, its fronts will preserve the same designations they had when faced by the front rank.

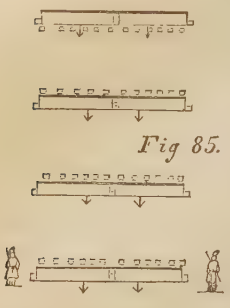


Fig 85.

The battalion being in square by the rear rank, when the colonel shall wish to march it in retreat or in advance, he will conform to what is prescribed above; otherwise, he will re-form the column, by marching forward the fourth front.

If the square is to be marched to the front, the colonel will face the column by the front rank; to this end, he will command:

1. *To march in advance.* 2. *Face by the front rank.* 3. *Battalion about*—FACE.

370. If the column be marching in advance, and the colonel shall wish to march it in retreat, he will command:

1. *To march in retreat.* 2. *Battalion right about.* 3. MARCH (or *double quick*—MARCH).

At the second command, the file-closers of the second and third divisions will place themselves rapidly before the front rank of their respective divisions. At the command *march*, the column will face about and move off to the rear.

If the column be marching in retreat and the colonel shall wish to march it in advance, he will command:

1. *To march in advance.* 2. *Battalion right about.* 3. MARCH (or *double quick*—MARCH).

At the second command, the file-closers of the second and third divisions will place themselves before the rear rank of their respective divisions; at the third, the column will face by the front rank.

To reduce the square.

371. The colonel, wishing to break the square, will command:

1. *Reduce square.* 2. MARCH (or *double quick* — MARCH).

This movement will be executed in the manner indicated No. 368; but the file-closers of the fourth front will place themselves behind the rear rank the moment it faces about; the field and staff, the color-bearer and buglers, will, at the same time, return to their places in column.

To form square from line of battle.

372. To ploy the battalion into column upon one of the flank divisions, the colonel will command:

1. *To form square.* 2. *Column at half distance by division* 3. *On the first* (or *fourth*) *division.* 4. *Battalion right* (or *left*) — FACE. 5. MARCH (or *double quick* — MARCH).

This movement will be executed according to the principles already prescribed.

373. To ploy the battalion into double column, the colonel will command:

1. *To form square.* 2. *Double column at half distance.* 3. *Battalion inwards*—FACE. 4. MARCH (or *double quick* — MARCH).

374. The battalion being in march, to ploy it into double column to form square, the colonel will command:

1. *To form square.* 2. *Form double column.* 3. *Battalion by the right and left flanks.* 4. MARCH (or *double quick* — MARCH).

The chief of the leading division will halt his division at the command *march.*

Squares in four ranks.

375. If the squares formed in two ranks, according to the preceding rules, should not be deemed sufficiently strong, the colonel may cause the square to be formed in four ranks.

The battalion being in column by company at full distance, right in front, and at a halt, when the colonel shall wish to form square in four ranks, he will first cause divisions to be formed, which being executed, he will command:

1. *To form square in four ranks.* 2. *To half distance, close column.* 3. MARCH (or *double quick* — MARCH).

At the first command, the chief of the first division will caution the right company to face to the left, and the left company to face to the right. The chiefs of the other divisions will caution their divisions to move forward.

At the command *march*, the right company of the first division will form into four ranks on its left file, and the left company into four ranks on its right file. The formation ended, the chief of this division will align it by the left.

The other divisions will move forward and double their files marching; the right company of each division will double on its left file, and the left company on its right file. The formation completed, each chief of division will command, *Guide left.* Each chief will halt his division when it shall have the distance of a company front in four ranks from the preceding one, counting from its rear rank, and will align his division by the left. At the instant the fourth division is halted, the file-closers will move rapidly before its front rank.

The colonel will form square, re-form column, and reduce square in four ranks, by the same commands and means as prescribed for a battalion in two ranks.

376. If the square formed in four ranks be reduced and at a halt, and the colonel shall wish to form the battalion into two ranks, he will command:

1. *In two ranks undouble files.* 2. *Battalion outwards* — FACE. 3. MARCH.

At the first command, the captains will step before the centres of their respective companies, and those on the right will caution them to face to the right, and those on the left to face to the left.

At the second command, the battalion will face to the right and left.

At the command *march*, each company will undouble its files and re-form into two ranks as indicated in the school of the company. Each captain will halt his company and face it to the front. The formation completed, each chief of division will align his division by the left.

377. To form square in four ranks on one of the flank divisions, the colonel will command:

1. *To form square, in four ranks.* 2. *Column at half distance, by division.* 3. *On the first* (or *fourth*) *division.* 4. *Battalion, right* (or *left*) — FACE. 5. MARCH (or *double quick* — MARCH).

At the second command, each chief of division will place himself before the centre of his division, and caution it to face to the right.

At the fourth command, the right guide of the first division will remain faced to the front, the battalion will face to the right.

At the command *march*, the first file of four men of the first division will face to the front, remaining doubled. All the other files of four men will step off together, and each in succession will close up to its proper distance on the file preceding it, and face to the front, remaining doubled. When the last file shall have closed, the chief of division will command, *Left* — DRESS.

The other divisions will ploy into column in the same manner as with a battalion in two ranks, observing what follows: the chiefs of divisions instead of allowing their divisions to file past them, on entering the column will continue to lead them, and as each division shall arrive on a line with the right guide of the first division, its chief will halt the right guide, who will immediately face to the front; the first file of four men will also halt at the same time and face to the front, remaining doubled. The second file will close on the first, and when closed, halt, and face to the front, remaining doubled. All the other files will execute successively what has just been prescribed for the second. When the last file shall have closed, the chief of division will command, *Left* DRESS.

378. If the colonel should wish to form a perpendicular square in four ranks by double column, he will command:

1. *To form square, in four ranks.* 2. *Double column, at half distance.* 3. *Battalion inwards* — FACE. 4. MARCH (or *double quick* — MARCH).

At the second command the captains of companies will place themselves before the centres of their respective companies, and caution those on the right to face to the left, and those on the left to face to the right. The captain of the fifth company will caution his covering sergeant to stand fast.

At the third command the battalion will face to the left and right; at the command *march,* the left file of the fourth, and the right file of the fifth company, will face to the front, remaining doubled. The fourth company will close successively by file of fours on the left file, and the fifth company, in like manner, on the right file; the files will face to the front, remaining doubled. The formation completed, the chief of division will command, *Right* DRESS. The junior captain will place himself in the interval between the two companies.

The other companies will close as prescribed for the double column in two ranks, observing what follows: Each captain will halt the leading guide of his company the moment the head of his company arrives on a line with the centre of the column. In the right companies, the left guides will step into the line of file-closers, and the left file of four men will face immediately to the front, remaining doubled, and by the side of the right guide of the left company. The companies will each form into four ranks, the right companies on the left file, and the left companies on the right file. The formation completed, the junior captain will place himself between the two companies, and the senior will command, *Right* DRESS.

Column against cavalry.

379. When a column closed in mass has to form square, it will begin by taking company distance; but if so suddenly threatened by cavalry as not to allow time for this disposition, it will be formed in the following manner:

The colonel will command:

1. *Column against cavalry.* 2. MARCH.

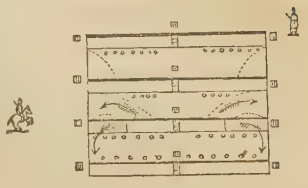
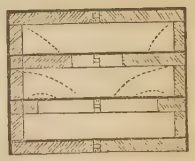


Fig 86.

(Fig. 86.) At the first command, the chief of the leading division will caution it to stand fast and pass behind the rear rank; in the interior divisions each captain will promptly designate the number of files necessary to close the interval between his company and the one in front of it. The captains of the divisions next to the one in rear, in addition to closing the interval in front, will also close up the interval which separates this division from the last; the chief of the fourth division will caution it to face about, and its file-closers will pass briskly before the front rank.



At the command *march*, the guides of each division will place themselves rapidly in the line of file-closers. The first division will stand fast, the fourth will face about, the outer file of each of these divisions will then face outwards; in the other divisions the files designated for closing the intervals will form to the right and left into line, but in the division next to the rearmost one, the first files that come into line will close to the right or left until they join the rear division. The files of each company which remain in column will close on their outer files, formed into line, in order to create a vacant space in the middle of the column.

If the column be in march, the *column against cavalry* will be formed by the same commands and means. At the command *march*, the first and fourth divisions will halt, and the latter division will face about; the interior divisions will conform to what has been prescribed above.

The battalion being no longer threatened by cavalry, the colonel will command:

1. *Form column.* 2. MARCH.

At the command *march*, the files in column will close to the left

and right to make room for those in line, who will retake their places in column by stepping backwards, except those closing the interval between the two rear divisions, who will take their places in column by a flank movement. The fourth division will face about, the guides will resume their places.

To deploy the battalion as skirmishers, and to rally this battalion.

To deploy the battalion as skirmishers.

380. A battalion being in line of battle, if the colonel should wish to deploy it on the right of the sixth company, for example, holding the three right companies in reserve, he will signify his intention to the lieutenant-colonel and adjutant, and also to the major, who will be directed to take charge of the reserve. He will point out to the lieutenant-colonel the direction he wishes to give the line, as well as the point where he wishes the right of the sixth company to rest, and to the commander of the reserve the place he may wish it established.

The lieutenant-colonel will move rapidly in front of the right of the sixth company, and the adjutant in front of the left of the same company. The commander of the reserve will dispose of it in the manner to be hereinafter designated.

The colonel will then command:

1. *First* (or *second*) *platoons — as skirmishers.* 2. *On the right of the sixth company — take intervals.* 3. MARCH (or *double quick* — MARCH).

At the second command, the captains of the fifth and sixth companies will prepare to deploy the first (or second) platoons of their companies, the sixth on its right, the fifth on its left file. The captain of the fourth company will face it to the right, and the captains of the seventh and eighth companies will face their respective companies to the left.

At the command *march*, the movement will commence, the platoons of the fifth and sixth companies will deploy forward (see No. 264); the right guide of the sixth will march on the point which will be indicated to him by the lieutenant-colonel.

The company which has faced to the right, and also the companies which have faced to the left, will march straight forward. The fourth company will take an interval of 100 paces, counting from the left of the fifth, and its chief will deploy its first platoon on its left file. The seventh and eighth companies will each take an interval of 100 paces, counting from the first file of the company which is immediately on its right; and the chiefs of these companies will afterwards deploy their first platoons on the right file.

The guides who conduct the files on which the deployment is made, should be careful to direct themselves towards the outer man of the neighboring company, already deployed as skirmishers; or if the company has not finished its deployment, they will judge carefully the distance which may still be required to place all these files in line, and will then march on the point thus marked out. The companies, as they arrive on the line, will align themselves on those already deployed.

The lieutenant-colonel and adjutant will follow the deployment, the one on the right, the other on the left; the movement concluded, they will place themselves near the colonel.

The reserves of the companies will be established in echelon in the following manner. The reserve of the sixth company will be placed 150 paces in rear of the right of this company; the reserves of the fourth and fifth companies, united, opposite the centre of their line of skirmishers, and thirty paces in advance of the reserve of the sixth company; the reserves of the seventh and eighth companies, also united, opposite the centre of their line of skirmishers, and thirty paces farther to the rear than the reserve of the sixth company.

The major commanding the companies composing the reserve, on receiving an order from the colonel to that effect, will march these companies thirty paces to the rear, and will then ploy them into column by company, at half distance; after which he will conduct the column to the point which shall have been indicated to him.

The colonel will have a general superintendence of the movement; and when it is finished, will move to a point in rear of the

line, whence his view may best embrace all the parts, in order to direct their movements.

If instead of deploying forward, it be desired to deploy by the flank, the sixth and fifth companies will be moved to the front ten or twelve paces, halted, and deployed by the flank, the one on the right, the other on the left file, by the means already indicated. (See No. 265.) Each of the other companies will be marched by the flank; and as soon as the last file of the company, next towards the direction, shall have taken its interval, it will be moved upon the line established by the fifth and sixth companies, halted, and deployed.

In the preceding example, it has been supposed that the battalion was in order of battle; but if in column, it would be deployed as skirmishers by the same commands, and according to the same principles.

If the deployment is to be made *forward*, the directing company, as soon as it is unmasked, will be moved ten or twelve paces in front of the head of the column, and will be then deployed on the file indicated. Each of the other companies will take its interval to the right or left, and deploy as soon as it is taken.

If the deployment is to be made by the *flank*, the directing company will be moved in the same manner to the front, as soon as it is unmasked, and will then be halted and deployed by the flank on the file indicated. Each of the other companies will be marched by the flank, and when its interval is taken, will be moved on the line, halted, and deployed as soon as the company next towards the direction shall have finished its deployment.

When the color-company is to be deployed as skirmishers, the color, without its guard, will be detached, and remain with the battalion reserve.

The rally.

381. The colonel may cause all the movements prescribed for a company to be executed by the battalion, and by the same commands and the same signals. When he wishes to rally the battalion, he will cause the *rally on the battalion* to be sounded, and so dispose his reserve as to protect this movement.

The companies deployed as skirmishers will be rallied in squares on their respective reserves (see No. 280); each reserve of two contiguous companies will form the first front of the square, throwing to the rear the sections on the flanks; the skirmishers who arrive first will complete the lateral fronts, and the last the fourth front. The officers and sergeants will superintend the rally, and as fast as the men arrive, they will form them into two ranks, without regard to height, and cause them to face outwards.

The rally being effected, the commanders of squares will profit by any interval of time the cavalry may allow for putting them in safety, either by marching upon the battalion reserve, or by seizing an advanced position; to this end, each of the squares will be formed into column, and march in this order; and if threatened anew, it will halt, and again form square.

As the companies successively arrive near the battalion reserve, each will re-form as promptly as possible, and, without regard to designation or number, take place in the column next in the rear of the companies already in it.

The battalion reserve will also form square, if itself threatened by cavalry. In this case, the companies in marching towards it will place themselves in the section without fire (*i. e.* march on the angles), and thus march on the squares.

ARTICLE VII.

SCHOOL OF THE TROOPER.

382. The object of this school is to make troopers skilful in the management of their horses and arms, in all directions, and at all gaits. To accomplish this, the instructor must attend particularly, from the commencement, to placing the men well on horseback, and to habituating them in the application of correct principles.

The instruction should always commence at *a walk*, in order to give the troopers the facility of seating themselves well, and of calming their horses, as they are generally more restive on first being brought together. The instruction should also terminate at *a walk*.

At the commencement it is generally necessary to make the troopers march repeatedly on the same track, at *a walk*, and at *a trot;* when, however, they already have some skill in the management of their horses, which is almost invariably the case with volunteer cavalry, this exercise is less necessary, and the instructor may proceed almost at once to the changes of direction, and other movements.

When the instructor wishes to rest the men, he commands:

Rest.

At this command the trooper is no longer required to remain immovable.

When the instructor wishes to resume the drill, he commands:

Attention.

When the trooper resumes his immovable position, and fixes his attention.

In the first part of the instruction but a very few men should be under the same instructor, or small squares should be formed as in infantry.

To conduct the horses to the drill ground.

383. The horses having the bridle reins near the neck, each trooper takes hold of the reins with the right hand, six inches from the mouth of the horse, the back of the hand up, the hand elevated and firm, to prevent the horse from jumping, and leads his horse to the ground, where under the direction of the instructor, he places it in such position that all the horses shall be on the same line, or in one rank.

The squad being formed, the instructor commands:

Count by fours.

At this command, the men count from right to left, *one, two, three, four*, according to the place which each one occupies.

The troopers should be without arms or spurs.

Position of the trooper before mounting.

384. On the left side of the horse, abreast of the lower jaw; the reins in the right hand six inches from the mouth of the horse, the back of the hand up. Heels upon the same line as nearly as the conformation of the man will permit, the feet at a little less than a right angle, and equally turned out; the knee straight without being stiff; the body perpendicular upon the haunches and slightly inclined forward; the left hand hanging by the side, the palm a little turned out, the little finger along the seam of the pantaloons; the head erect without being constrained, the chin drawn in, and eyes to the front.

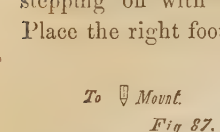
To mount.

385. The instructor commands:

Prepare to Mount.

One time and two motions.

First motion. (Fig. 87.) Nos. 1 and 3 move forward six paces, stepping off with the left foot, keeping opposite their intervals. Place the right foot three inches in rear of the left; make a face and a half to the right on both heels, the right toe to the front; let go the right rein; slip the right hand along the left rein; take two steps, stepping off with the right foot, and face to the left on the toe of the left foot, the right side towards the flank of the horse; carry back the right heel three inches in rear of the left; the right hand seizing the end of the reins is placed upon the cantle of the saddle.



Second motion. Place a third of the left foot in the stirrup, supporting it against the fore-arm of the horse; rest upon the point of the right foot, and seize a lock of the mane with the left hand over the reins as far forward as possible, the extremity of the lock passing out of the hand on the side of the little finger.

Mount.

One time and two motions.

First motion. At the command *mount*, spring from the right foot, holding firmly to the mane, at the same time pressing the cantle with the right hand to prevent the saddle from turning; the body erect.

Second motion. Pass the right leg stretched over the croup of the horse, without touching him; sit down lightly in the saddle, placing the right hand at the same time, without quitting the reins, upon the right holster, the palm of the hand resting upon it, the fingers on the outside of it, and take one rein of the bridle (if a snaffle) in each hand.

If the trooper is using the curb bridle, he will pass the reins into the left (or *bridle* hand), the little finger between the reins, the other fingers well closed, and the thumb upon the second joint of the first finger; the elbow slightly detached from the body, the hand four inches above the pommel of the saddle, the fingers six

inches from, and turned towards the body; the right hand at the side.

The instructor should allow but a short interval between the first and second motion, because, were the trooper to remain a long time on the stirrup, the horse would become restive, and move out of place, then command:

Form — RANK.

Nos. 1 and 3 raise the wrists (or the bridle hand), and hold the legs close to the body of the horse to keep him quiet; Nos. 2 and 4 enter the intervals without jostling and without precipitation.

After mounting, the instructor causes the stirrups to be crossed upon the neck, the left stirrup over the right.

Position of the trooper, mounted.

386. The buttocks bearing equally upon the saddle, and as far forward as possible; the thighs turned upon their flat side, or knees turned in, without effort, embracing the horse equally, and stretched only by their own weight and that of the legs; a supple bend of the knees; the legs below the knee free, and falling naturally; the toes falling in like manner; the loins supported without stiffness; the upper part of the body at ease, free and erect; the shoulders square; the arms free, the elbows falling naturally; the head erect, at ease, and not drawn in between the shoulders; when the snaffle is worn, one rein in each hand, the fingers closed, the thumb along each rein, the wrists as high as the elbow, at six inches from each other, the fingers turned towards each other, the upper extremity of the reins leaving the hand on the side of the thumb.

The instructor then commands:

1. *Eyes* RIGHT (or LEFT). 2. FRONT.

At the word *right*, the head is turned gently to the right, so that the corner of the left eye, next the nose, may be in a line with the buttons of the jacket.

At the command *front*, the head is gently turned to the front.

The use of the reins.

387. The reins serve to prepare the horse for the movements he is required to execute, to direct him, and to stop him. Their action should be progressive, and in accordance with that of the legs.

When the trooper makes use of the reins, the arms should act with suppleness, and their movements ought to extend from the waist to the shoulder.

The use of the legs.

388. The legs serve to urge the horse forward, to support him, and to aid him in turning to the right or left. Whenever the trooper wishes his horse to move forward, he should close the legs by degrees behind the girths, causing their effects to correspond with the sensibility of the horse, taking care neither to open or elevate the knees, of which the bend should be always pliant. The trooper relaxes the legs by degrees, as he closed them.

The effect of the reins and legs combined.

389. In elevating the wrists, or the bridle-hand, a little, and closing the legs, the trooper "*gathers his horse*;" in elevating the wrists, or bridle hand, he slackens the pace; in repeating this movement of the wrists, or bridle-hand, he stops the horse, or he "*reins back.*" The trooper ought to elevate the wrists without curving them, at the same time drawing them slightly towards the body.

In opening the right rein, and closing the right leg, the trooper turns his horse to the right. To open the right rein, the right wrist is carried, without turning it, more or less to the right, according to the sensibility of the horse. When the curb is worn, move the bridle-hand forward and to the right.

In opening the left rein, and closing the left leg, the trooper turns his horse to the left. The left rein is opened upon the same principle as that on which the right is opened. When the curb is worn, move the bridle-hand forward and to the left.

By lowering the wrists, or bridle-hand, slightly, the horse is at liberty to move forward; the closing of the legs puts him in motion.

To march.

390. The instructor commands:

1. *Squad forward.* 2. MARCH.

At the command *squad forward,* elevate the wrists, or bridle-hand, slightly, and close the legs, in order to gather the horse.

At the command *march,* lower the wrists, or bridle-hand, slightly, and close the legs more or less, according to the sensibility of the horse. The horse having obeyed, replace the wrists, or bridle-hand, and the legs by degrees.

After some steps the instructor commands:

1. *Squad.* 2. HALT.

At the first command, the trooper gathers his horse without slackening his pace.

At the command *halt,* the trooper braces himself in the saddle; elevate the wrists, or bridle-hand, at the same time, by degrees, and close the left to prevent the horse from backing. The horse having obeyed, replace the wrists and the legs by degrees.

To turn to the right, or left.

391. The instructor commands:

1. *Squad to the right* (or *left*). 2. MARCH. 3. HALT.

At the command *squad to the right,* gather the horse.

At the command *march,* open the right rein, or move the bridle hand to the right, and gradually close the right leg. In order not to turn the horse too short, perform the movement on the fourth of a circle three paces in length. The movement being almost completed, diminish the effect of the rein and the right leg, supporting the horse at the same time with the left rein and leg to terminate the movement.

At the command *halt,* elevate the wrists or bridle-hand slightly, and hold the legs near, in order to keep the horse straight in the new direction; replace the wrists and the legs by degrees.

To turn about to the right, or left.

392. The instructor commands:

1. *Squad to the right* (or *left*), *about.* 2. MARCH. 3. HALT.

This command is executed on the principles prescribed for the *turn to the right or left*, with this difference, that the horse should pass over a semicircle of six paces, and face to the rear.

To make a quarter turn to the right or left.

393. The instructor commands:

1. *Squad right* (or *left*) *oblique.* 2. MARCH. 3. HALT.

At the command *right oblique*, gather the horse.

At the command *march*, open the right rein a little, or move the bridle-hand slightly to the right, and close the right leg slightly, in order to make the horse execute *a quarter turn to the right;* cause the horse to feel, almost at the same time, the effect of the right rein and the left leg, to terminate the movement without increasing the degree of obliquity.

At the command *halt*, elevate the wrist, or bridle-hand, and close the legs slightly, to keep the direction of the *quarter turn to the right;* replace the wrists and legs by degrees.

The instructor commands *halt*, almost immediately after the command *march;* he does not require great exactness in this movement, the object of which is to give the trooper the first idea of the oblique march.

To rein back, and to cease reining back.

294. The instructor commands:

1. *Squad — backwards.* 2. MARCH. 3. *Squad.* 4. HALT.

At the command *backwards*, gather the horse. At the command *march*, keep a firm seat, elevate the wrists, or bridle-hand, and close the legs. As soon as the horse obeys, lower and elevate the wrists or bridle-hand, in regular succession, which is called *yielding and checking.* If the horse throws the haunches to the

right, close the right leg; if to the left, close the left leg. If these means are not sufficient to replace the horse in his proper position, open the rein on the side towards which the horse throws the haunches, causing him to feel slightly, at the same time, the effect of the opposite rein.

At the command *squad*, the trooper prepares to stop. At the command *halt*, lower the wrists, or bridle-hand, and close the legs. The horse having obeyed, replace the wrists, or bridle-hand, and the legs by degrees.

To dismount.

395. The instructor causes the stirrups to be let down, and the feet put in them. He then commands:

1. PREPARE TO DISMOUNT.

One time, and two motions.

First motion. Nos. 1 and 3 move forward six paces, and keep themselves opposite their intervals. Pass the right rein of the snaffle (when it is worn) into the left hand, the extremity of the reins leaving the hands on the side of the thumb.

Second motion. Seize the reins of the snaffle (or of *the curb bridle*) above and near the left thumb with the right hand, the back of the hand up, and place this hand upon the right holster. Disengage the right foot from the stirrup, and seize with the left hand a lock of the mane over the reins.

2. DISMOUNT.

One time, and two motions.

First motion. At the command *dismount*, rise upon the left stirrup; pass the right leg extended over the croup of the horse, without touching him, and bring the right thigh near the left, the body well sustained; at the same time place the right hand on the cantle of the saddle, slipping it along the reins without letting them go; descend lightly to the ground, the body erect, the heels on the same line. Let go the mane with the left hand.

Second motion. Make a face and two steps to the left, stepping off with the left foot; slip the right hand along the left rein, seize both reins with the same hand six inches from the mouth of the horse, back of the hand up, and take the position of *the trooper dismounted.*

To file off.

396. The instructor commands:

1. *By the right* (or *left*) — FILE OFF. 2. MARCH.

At the command *march,* the trooper of the right (or left) steps off with the left foot, leading his horse to the front; he takes four steps, turns to the right, (or left,) and marches, in the new direction, at the same time holding the hand high and firm to keep the horse from jumping. Each trooper executes, in succession, the same movement, when the one who precedes him has moved four paces to the front.

Exercises in the riding house.

397. In the instruction which follows, the squad is supposed to be exercising in a riding house whose sides are about ninety, and ends thirty, yards in length, or on a riding ground which is bounded by lines corresponding to the walls of the riding house.

Two of the best instructed troopers are designated to be conductors; they are placed on the right and left of the squad, and use their stirrups.

To march to the right (or *left*) *hand.*

398. The squad being drawn up in the riding house, or on the ground, parallel to its length, the instructor commands:

1. *Squad to the right* (or *left*). 2. MARCH. 3. FORWARD.

(Fig. 88.) At the command *march,* the troopers conform to what is prescribed in order to execute a turn to the right from a halt, as directed in No. 391.

At the command *forward,* the troopers, in lowering their wrists and closing the legs, march straight forward, and follow the conductor.

At the extremity of the riding house, the conductor turns to the right, when the troopers march to the right hand, having between them the distance of four feet from head to croup.

The trooper marches *to the right hand*, when he has the right side towards the interior of the riding horse. He marches *to the left hand*, when it is the left side.

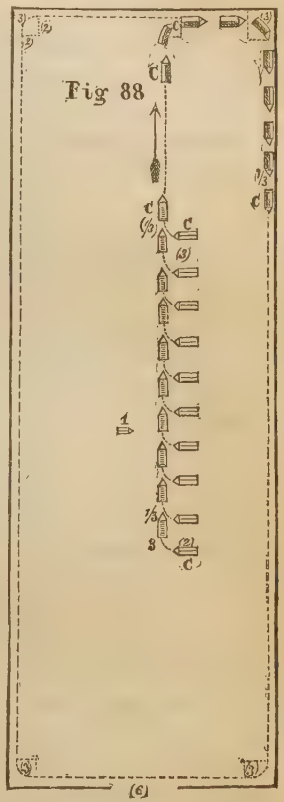


Fig 88

To turn to the right (or *left*) *in marching.*

399. The troopers follow the conductor, and make a turn to the *right* (or *left*), in marching, or arriving at the angles of the riding house. The instructor directs the trooper to advance the outer hip and shoulder, without inclining inward, in order to conform to the movement of the horse.

To halt, and to step off.

400. The troopers marching in column on one of the long sides, the instructor commands :

1. *Squad.* 2. HALT.

The troopers stop as prescribed in No. 390.

To recommence the march, the instructor commands :

1. *Squad forward.* 2. MARCH.

To pass from the walk to the trot, and from the trot to a walk.

401. The troopers becoming habituated to the movement of the horse, the instructor causes them to pass to *the trot.* When they are in column on one of the long rides, he commands :

1. *Trot.* 2. MARCH.

At the command *trot*, gather the horse, without increasing his gait.

At the command *march*, lower the wrists a little, and close the legs more or less, according to the sensibility of the horse. As soon as the horse obeys, replace the wrists and the legs by degrees.

The instructor should employ this gait cautiously at first, and at a moderate trot, that the men may not lose their position.

To pass from the *trot* to the *walk*, the instructor commands:

1. *Walk.* 2. MARCH.

At the command *walk*, gather the horse without affecting his gait.

At the command *march*, elevate the wrists, or bridle-hand, by degrees, and hold the legs near, in order to prevent the horse from stopping. As soon as the horse obeys, replace the wrists and legs by degrees

Changes of hand.

402. When the troopers have marched some time to the *right* (or *left*) *hand*, to make them change hands in the breadth of the riding house, or ground, without stopping, the instructor commands:

1. *Right* (or *left*) — TURN. 2. FORWARD.

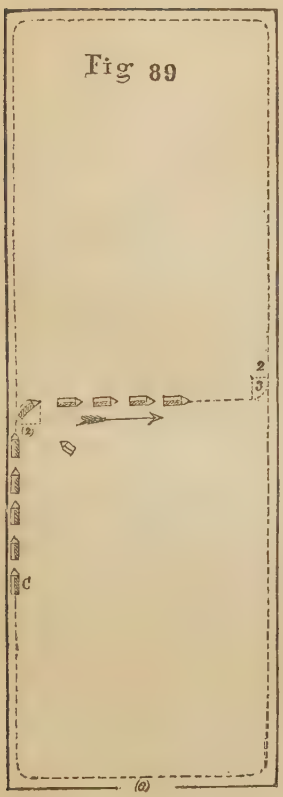
(Fig. 89.) At the word *turn*, the leading file turns to the right. At the command *forward*, he moves straight forward and crosses the riding-house, or ground, in its breadth, followed by the other troopers.

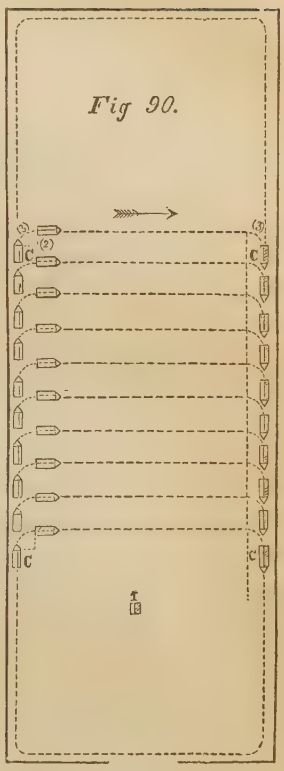
The leading file being at two paces from the opposite track, the instructor commands:

1. *Left* (or *right*) — TURN. 2. FORWARD.

At the command *turn*, the leading file turns to the left; and at the command *forward*, he follows the track. All the troopers turn in succession on the same ground.

The instructor causes these changes of hand to be made *at a walk*, and *at a trot.*





To turn to the right (or *left*) *by trooper, in marching.*

403. The troopers marching in column, and having arrived about the middle of one of the long sides, the instructor commands:

1. *Squad to the right* (or *left*). 2. MARCH. 3. FORWARD.

(Fig. 90). At the command *squad to the right*, gather the horse At the command *march*, each trooper executes a turn to the right in marching. At the command *forward*, each trooper moves straight to the front.

The troopers being at two paces from the opposite track, the instructor commands:

1. *Squad to the right* (or *left*). 2. MARCH. 3. FORWARD.

At the command *march*, each trooper executes a *turn to the right*, following the same principles; and at the command *forward*, all return to the track.

The same movements are repeated to resume the order in which the troopers were originally.

To turn about to the right (or *left*) *by troopers, in marching on the same line.*

404. The troopers having made a turn to the right as has just been explained, and having arrived near the opposite track, the instructor commands:

1. *Squad to the right* (or *left*) *about.* 2. MARCH. 3. FORWARD.

(Fig. 91.) At the command, *squad to the right about*, gather the horse. At the command *march*, each trooper executes a *turn to the right about* in marching, following the principles laid down in No. 392. At the command *forward*, each trooper moves directly to the front.

The instructor gives the command *march*, at the moment the troopers are within two paces of the track; the troopers are then re-formed in column upon the opposite track, by the movement of *squad to the right* (or *left*).

To turn about to the right (or *left*) *by trooper, in marching in column.*

405. The troopers marching in column, and the leading file having arrived near the end of one of the long sides of the riding house, or ground, the instructor commands:

1. *Squad to the right* (or *left*) *about.* 2. MARCH. 3. FORWARD.

(Fig. 92.) At the command *squad to the right about*, gather the horse. At the command *march*, each trooper executes a *turn to the*

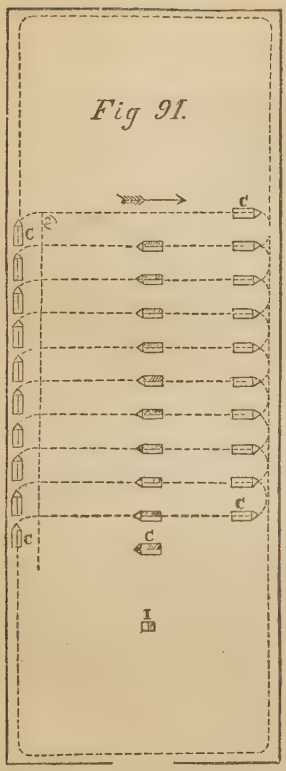


Fig 91.

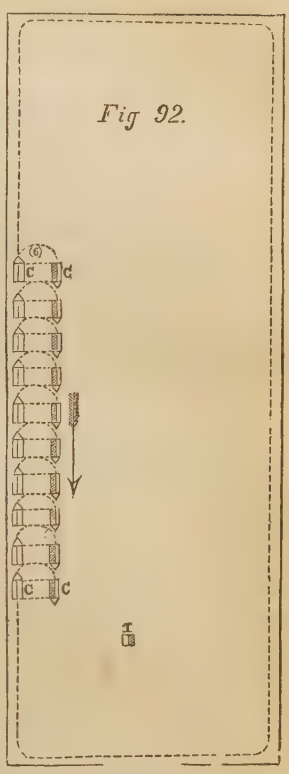


Fig 92.

right about in marching. At the command *forward,* each trooper moves forward.

On arriving at the short side opposite, the leading file turns to the left without command; the squad returns to the original order, by executing the inverse movement.

406. To *rest* the squad, the instructor causes the troopers to *turn to the right* (or *left*), when they are about the middle of one of the long sides of the riding house, or ground, and gives the command *halt,* when they are out of the track. The instruction is recommenced by a *turn to the right* (or *left*).

To terminate the drill, the stirrups are let down, and the feet placed in them, when the instructor commands the troopers *to dismount*, and *file off*.

During the *rests*, the instructor exercises the troopers in *vaulting on*, and *from, their horses*, without commands.

To leap to the ground.

The trooper, holding the reins as in dismounting, seizes a lock of the mane firmly with the left hand; places the right hand upon the pommel, raises himself upon his wrists, brings the right thigh by the side of the left, remains an instant in this position, and descends lightly to the ground.

To leap on the horse.

The trooper seizes the mane with the left hand, places the right hand which holds the reins upon the pommel of the saddle, springs lively, raising himself upon the two wrists, remains an instant in this position, and places himself lightly in the saddle.

The instructor sometimes gives the command *to rest in marching*, in order to calm the horses after a quick pace, and to relieve the troopers. During the *rest in marching*, the troopers relax themselves, but without changing the pace, and without losing their distance.

Exercises in two ranks.

407. The troopers are placed in two ranks opened, with a distance of six paces between the ranks, and the horses at one foot from each other. In this instruction from twelve to sixteen troopers may be united. The stirrups are crossed as in the preceding cases; the men wear spurs.

The instructor commands:

In each rank — count FOURS.

At the last part of the command, the men count in each rank, from right to left, pronouncing in a loud and distinct voice, in the same tone, without hurry, and without turning the head; *one, two, three, four*, according to the place which each one occupies.

At the command:

PREPARE TO MOUNT.

Nos. 1 and 3 of *each rank* move six paces to the front; stepping off with the left foot, keeping opposite their intervals, and regulating by the right. The troopers then execute the *first* motion of prepare to mount as directed for a single rank.

After the troopers are mounted, the instructor commands:

Form — RANKS.

At the command, *ranks* Nos. 1 and 3 raise the wrists (or bridle-hand), and hold the legs close to the body of the horse to keep him quiet; Nos. 1 and 4 enter the intervals without jostling and without precipitation.

The rear rank being formed, closes to the distance of *two* feet from the front.

Of the spurs.

408. The instructor explains to the troopers the use and the effect of the spur.

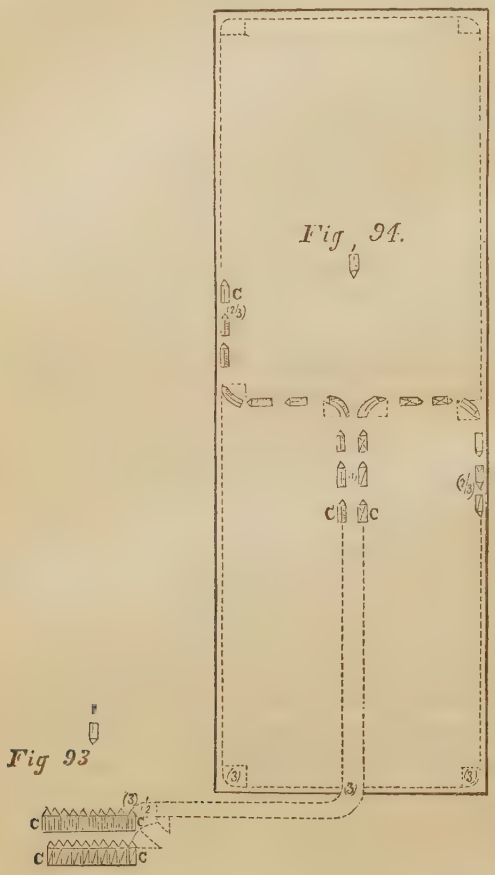
If the horse does not obey the legs, it is necessary to employ the spur. The spur is not an aid, it is a means of chastising. It is only necessary to use it occasionally, but always vigorously, and at the moment the horse commits the fault.

In order to use the spurs, it is necessary to keep steady the body, the waist, and the wrists; to cling to the horse with the thighs and the calves of the legs; turn the toes a little out; lower the wrists a little; press the spurs close behind the girths, without moving the body, and let them remain there until the horse obeys; then replace the wrists and legs by degrees. In using the spur, the troopers should not bear too much upon the rein, as this would counteract the effect of the spur.

409. To conduct the squad to the riding house, or ground, the instructor commands:

1. *By file to the right* (or *left*). 2. MARCH.

(Fig. 93.) At the command *by file to the right*, gather the horse. At the command *march*, the trooper on the right of each rank executes a *turn to the right*, and moves forward, the trooper of the rear



rank approaching, in marching, to within one foot of the one of the front rank. This movement is executed by all the other troopers in succession.

To march to the right (or *left*) *hand.*

410. In entering the riding house, or ground, the instructor

marches his squad parallel to the long sides, and when the head of the column arrives towards the middle, he commands:

1. *Right and left*—TURN. 2. FORWARD.

(Fig. 94.) The leading file of the front rank turns to the left, the one of the rear rank turns to the right; when these files have arrived within two paces of the track, the instructor commands:

1. *Right*—TURN. 2. FORWARD.

The two columns then march to the right hand, and at the same pace.

The troopers preserve the distance of four feet from head to croup.

The leading files regulate the pace of their horses so as to arrive at the same time at the opposite angles of the riding-house, or ground, the leading file of the rear rank regulating himself on him of the front.

To pass a corner to the right, a *turn to the right* is executed; to pass a corner to the left, a *turn to the left* is made in marching; the movement of each one should be independent of the trooper who has gone before, their hands and legs alone should determine the horse to go to the right or to the left.

To pass from the walk to the trot, and from the trot to the walk

411. The troopers marching in column upon the long sides, the instructor causes them to commence the trot.

Whenever the change is made from a slow gait to one more rapid, as from a *walk* to the *trot*, it is necessary to commence slowly, and increase it gradually to the degree prescribed.

The troopers marching in column at *a trot* upon the long sides, the instructor causes them to pass *to the walk.*

Whenever the change is made from a lively gait to one more slow, as from the *trot* to the *walk*, it is necessary to commence the last gait as gradually as possible, and to reduce it by little and little to the degree indicated.

Change of direction in the breadth of the riding house, or ground.

412. The instructor causes the change of direction in the breadth of the riding house, or ground, as directed for the changes of hand, taking care to give the command in sufficient time to prevent the columns from meeting at the end of the change of direction.

(Fig. 95.) The change of direction ought to be executed so as neither to stop nor check the rear of the column; the troopers, and

particularly the leading files, ought to turn without slackening the pace, aiding themselves not only with their hands, but also with their legs.

Change of direction in the length of the riding-house, or ground.

413. (Fig. 96.) This change of direction is executed on the same principles as that in the breadth of the riding house, or ground, the instructor observing, in order to commence it, to command *right* or *left*, at the instant the leading files arrive at the first angle, and to command *turn*, when having passed the corner, they are at three paces from the middle of the short side.

The troopers then cross the riding house, or ground, in its length in a right line, without touching each other, passing to the left, and re-enter upon the track at the commands:

1. *Right* (or *left*) — TURN. 2. FORWARD.

Change of direction diagonally.

414. When the leading files have passed the second corner, and have arrived upon the long sides, the instructor causes a diagonal change of direction to be executed at the commands:

1. *Right* (or *left*) — TURN. 2. FORWARD.

(Fig. 97.) At the command *turn*, the leading files make a *half-turn to the right.* At the command *forward*, they move straight forward, cross the riding house, or ground, diagonally, pass each other to the left, and re-enter upon the track at the commands:

1. *Left* (or *right*). 2. TURN. 3. FORWARD.

All the other troopers execute the same movement in succession, in turning upon the same ground that the leading files have turned.

Change of direction obliquely by the trooper.

415. The squad commences a change of direction in the length of the riding house, or ground; as soon as all the troopers have turned, and are in the same direction, the instructor commands:

1. *Column.* 2. HALT.

(Fig. 98.) The troopers stop at the same time, keeping their horses straight, and at their distances.

The instructor causes the troopers to make a *quarter-turn to the right* (or *left*) from a halt. This movement being executed, he as-

Fig 97.

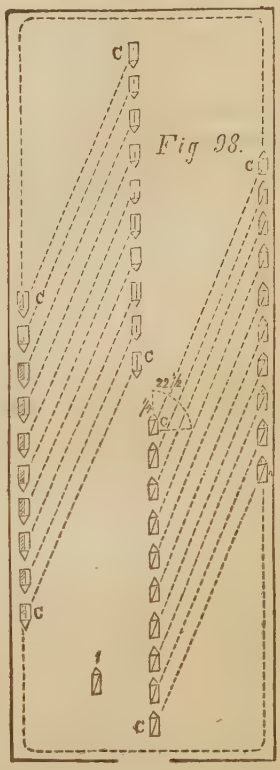


Fig 98.

sures himself of the exactness of the directions and intervals, and then commands:

1. *Squad forward.* 2. MARCH.

The troopers march at the same gait, each in the direction he has taken. When they arrive one foot from the track, the instructor commands:

FORWARD.

At this command, make a *quarter-turn to the left* in advancing, with the hand light and leg near, to follow the track.

The instructor causes these movements to be repeated without halting; for this purpose, after having commenced the change of direction in the length of the riding house, or ground, as soon as the two ranks are in column, he commands:

1. *Squad right* (or *left*) *oblique.* 2. MARCH. 3. FORWARD.

At the command *right oblique*, gather the horse. At the command *march*, execute a *quarter-turn to the right;* having taken this direction, keep the legs equally near, and march straight forward at the same gait. At the command *forward*, return upon the track, or return to the original direction.

To march in a circle.

416. When the leading files have passed over about one-third of the long sides, the instructor commands:

1. *In circle to the right* (or *left*). 2. MARCH.

(Fig. 99.) At the command *in circle to the right*, the leading files, and in succession the troopers, gather their horses. At the command *march*, the leading files describe a circle between the two tracks; they are followed by the other troopers, who march exactly in the same direction.

To change hand on the circle.

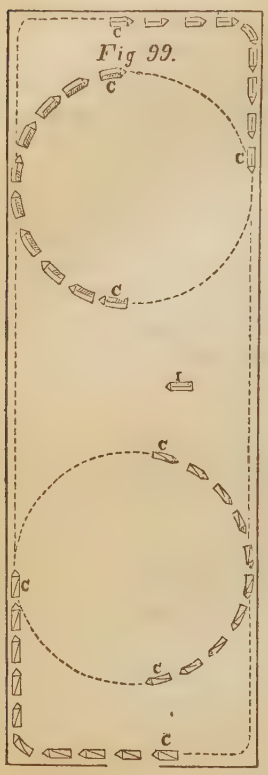
417. The instructor commands:

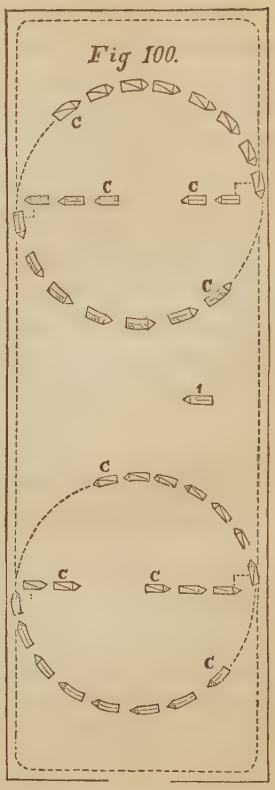
1. *Right* (or *left*) — TURN. 2. FORWARD.

(Fig. 100.) At the command *turn*, the leading files turn to the right. At the command *forward*, they move straight forward, directing themselves, in passing the centre, towards the opposite point of the circumference.

When the leading files are two feet from this point, the instructor commands:

1. *Left* (or *right*) — TURN. 2. FORWARD





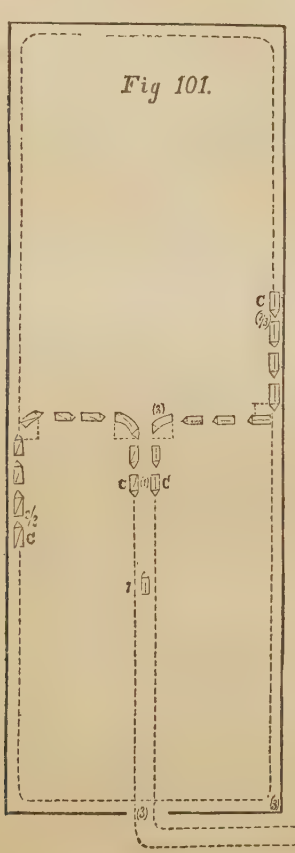
At the command *turn*, the leading files turn to the left. At the command *forward*, they re-enter upon the circle at the new hand. All the other troopers follow the leading files.

When the instructor wishes to resume the exercise upon the right line, he takes care that the leading files are at opposite points of the circumference; and when they are on the track of the long sides, he commands:

FORWARD.

At this command the leading files straighten their horses and re-enter on the track, followed by the other troopers.

418. (Fig. 101.) To reunite the troopers in order to conduct them to the quarters, the instructor causes them to close to the distance of two feet; he then orders a change of direction in the breadth of the riding house, or ground, at the moment the leading files are opposite each other.



When the leading files, in the act of meeting each other, arrive towards the middle of the space, the instructor commands:

1. *Left and right* — TURN. 2. FORWARD.

The leader of the front rank turns to the left, that of the rear rank to the right, the two columns thus reunite, the troopers of the rear rank approaching to within one pace of those of the front.

The column having arrived on the ground where the squad was formed, the instructor commands:

1. *Front.* 2. HALT.

(Fig. 102.) At the command *front*, the first trooper of each rank turns to the left and moves straight forward. At the command *halt*, the trooper of the front rank stops; and when the rear rank trooper finds himself at two feet from the front rank he stops also.

All the other troopers execute a *turn to the left*, in succession, when they are nearly opposite the place they are to occupy in the rank, and halt abreast of this rank.

419. To terminate the exercise, the instructor gives the command to dismount in two ranks as follows: at the command

PREPARE TO DISMOUNT,

Nos. 1 and 3 of the front rank move forward six paces; Nos. 2 and 4 of the rear rank rein back four paces, and keep themselves opposite their intervals, dressing by the right.

After the troopers have taken these positions they go through the first motions of *prepare to dismount* as directed for a single rank, followed by the *dismount.*

After the dismount the instructor commands:

Form — RANKS.

At the word *ranks*, Nos. 1 and 3 of each rank elevate the right hand slightly, to keep the horse quiet; Nos. 2 and 4 return quietly to their intervals.

Exercises with stirrups.

420. The stirrup should support only the weight of the leg; the foot ought to be inserted one-third of its length, the heel lower than the toe. The stirrups are of proper length, if, when the trooper

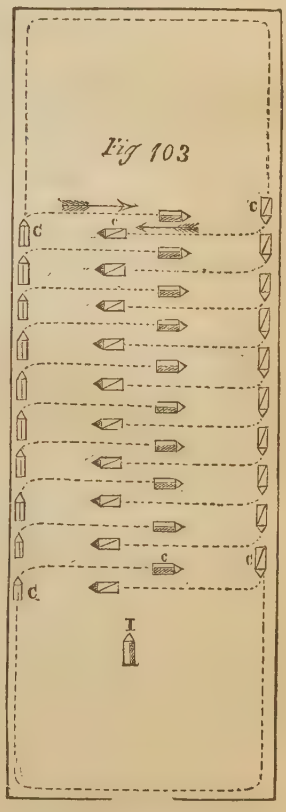
raises himself on the stirrups, there is a space of six inches between the fork and the saddle.

To turn to the right (or *left*), *by the trooper, in marching.*

421. The instructor causes this movement to be executed as already prescribed (No. 398), at the commands:

1. *Squad to the right.* 2. MARCH. 3. FORWARD.

He will observe that, the troopers marching in two columns, the command *march* ought to be given at the moment the leading files arrive opposite the last trooper but one of the other column.



(Fig. 103.) Immediately after the command *forward*, the troopers move straight forward, preserving their gait and direction, so that each one may find before him the interval and the place he is to occupy in the column on the opposite track. In passing into the intervals, the legs should be kept near, to prevent the horse slackening his gait.

To pass in succession from the head to the rear of the column.

422. This movement is executed in succession in the two columns, at a simple warning from the instructor, by two *right* (or *left*) *about turns.*

The trooper designated to pass to the rear of the column gathers his horse and executes the movement in advancing, so as not to retard those who are behind him. He holds the outer leg near, in order to describe a semicircle of more than six paces; he marches then parallel to the column, and when he has re-entered upon the track by a second turn, he closes to the distance of four feet from

the last trooper. The trooper who follows, and who becomes the leader, should gather his horse, and direct him with the outer rein and the inner leg, to prevent his following the horse which has left the column.

Being at a halt, to commence the move at a trot.

423. The troopers being in column upon the long sides, the instructor commands:

1. *Column forward.* 2. *Trot.* 3. MARCH.

At the command *trot*, gather the horse. At the command *march*, lower the wrists and close the legs by degrees; as soon as the horse obeys, replace the wrists and legs slowly.

Marching at a trot, to halt.

424. The troopers marching *at a trot*, and in column on the long sides, the instructor commands:

1. *Column.* 2. HALT.

At the command *column*, gather the horse. At the command *halt*, elevate the wrists by degrees, until the horse stops; and hold the legs always near, to keep him straight, and to prevent his stepping back. The horse having obeyed, gradually replace the wrists and legs.

The instructor should require all the troopers to set off freely *at the trot*, at the command *march*, and to stop altogether without jostling, at the command *halt*.

To pass from the trot to the trot-out, and from the trot-out to the trot.

425. The troopers marching *at the trot*, and in column upon the long sides, the instructor commands:

TROT-OUT.

At this command, lower the wrists a little, and close the legs gradually; as soon as the horse obeys, replace the wrists and the legs by degrees.

This gait should be executed only during one or two turns towards each hand; in continuing it longer, the horses lose their steadiness, and the equality of their gaits is destroyed.

426. To pass from the *trot-out to the trot*, the instructor commands:

SLOW TROT.

At this command, elevate the wrists by degrees, and close the legs, to prevent the horse from taking the walk; as soon as the horse obeys, replace the wrists and legs by degrees.

To pass from the trot to the gallop.

427. Before commencing this exercise, and when the rear rank arrives opposite one of the short sides of the riding house, or ground, it is formed by causing the troopers to *front* and *halt*, as directed No. 391, paying attention to make them move forward six paces from the track.

The troopers of the front rank continue to march, take between them the distance of *four* paces, pass *to the trot* and commence *the gallop* in succession, at the indication of the instructor, as follows:

On approaching the corner, *lengthen the trot*, and gather the horse, feeling the left rein slightly, in order to keep back the left shoulder, and leave the right perfectly free.

At the moment of passing the corner, close the legs equally but not suddenly. The horse having taken *the gallop*, hold a light hand and the legs near, to keep him at his gait.

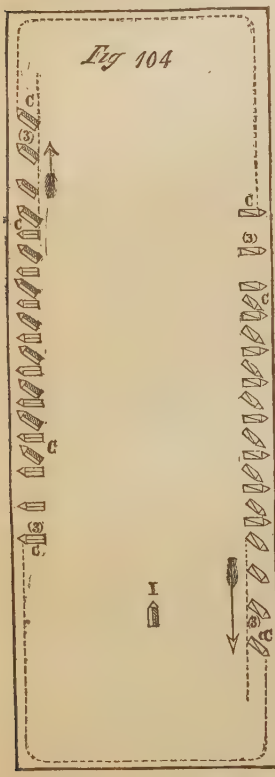
After one or two turns, the troopers pass from the *gallop to the trot*, and from the *trot to the walk*. The instructor makes them change hand in the breadth of the riding ground, and recommence the same exercise *to the left hand*. The troopers of the front rank are then formed as those of the rear rank, upon the other short side, and the troopers of the rear rank go through with the same exercise.

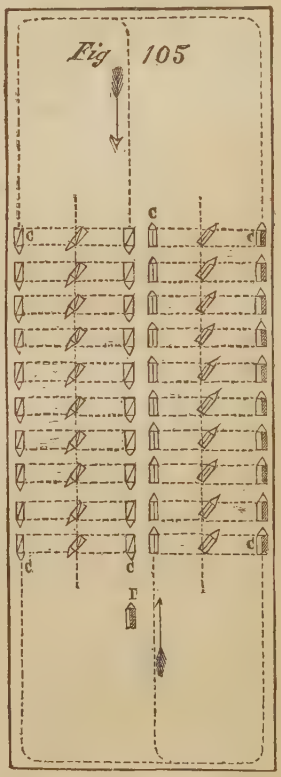
To passage to the right or left.

428. The two columns marching *at a walk* upon the long sides, the instructor causes the movement *squad to the right* (or *left*) to be executed, No. 398, and having halted the troopers he commands:

1. *Right* (or *left*) *pass.* 2. MARCH. 3. *Squad.* 4. HALT.

(Fig. 104.) At the command *right pass,* bear the shoulders of the horse to the right, in opening the right rein a little, and closing the right leg. This movement is one of preparation; it indicates to the trooper that the shoulders of the horse should always commence the march, and precede the movement of the haunches. At the com-





mand *march* open the right rein to incline the horse to the right, closing the left leg at the same time, that the haunches may follow, without leaning the body to the left: make use of the left rein and the right leg, to support the horse and moderate his movement.

After some steps upon the side, the instructor halts the squad.

At the command *halt*, cause the effect of the right rein and left leg to cease instantly, employing the opposite rein and leg; straiten the horse, and replace the wrists and legs by degrees.

To passage to the left, employ the same principles and inverse means.

The instructor causes this movement to be executed in the commencement, by each man separately, and then by all at the same time.

To passage to the right, or left, bring in column.

429. (Fig. 105.) The troopers being on the track, and marching to *the right* (or *left*) *hand*, the instructor orders a change of direction in the length of the riding house or ground; and when the two columns are by the side of each other, he halts them and causes them to execute *passage to the right* (or *left*). When the troopers have nearly arrived at the track the instructor halts them.

Principles of the Gallop.

430. A horse gallops on the right foot, when the right fore and hind leg move in advance of the left fore and hind leg. This gait is generally divided into three distinct times or treads. The first time is marked by the left hind foot which reaches the ground first; the second by the left fore and right hind foot which touch at the same instant, and the third by the right fore-foot.

A horse gallops on the left foot when the left fore and hind leg move in advance of the right fore and hind leg. In this case, the right hind foot first reaches the ground, then the right fore and left hind foot, and lastly the left fore foot.

A horse gallops true when he gallops on the right foot, in exercising or turning to the right hand, and on the left foot, in exercising or turning to the left hand.

A horse gallops false when he gallops on the left foot in exercising or turning to the right hand, and on the right foot, in exercising or turning to the left hand.

A horse is "disunited" when he gallops with the near fore leg

followed by the off hind leg, or with the off fore leg followed by the near hind leg.

When the horse gallops on the right foot, the rider experiences a sensible movement in his position from right to left, and when he gallops on the left foot, the rider experiences a sensible movement in his position from left to right.

When the horse is disunited, the trooper experiences irregular movements in his position; the centre of gravity of the horse is deranged, and his strength impaired.

To gallop on right lines.

431. After the troopers of the rear rank are formed as directed No. 427, the instructor causes the men of the front rank to take the distance of four paces from each other; these troopers marching *at the trot*, and to the *right hand* upon one of the long sides, the instructor commands:

1. *Gallop.* 2. MARCH.

At the command *gallop*, gather the horse and keep him perfectly straight. At the command *march*, carry the bridle-hand slightly forward and to the left, to enable the right shoulder to move in advance of the left, and close the legs behind the girths in order to urge the horse forward, causing him to feel the effect of the left leg lightly. The horse having obeyed, hold a light hand and the legs near, to keep him at his gait.

To preserve the movement of the horse true, it is necessary for the trooper to accommodate himself to all his motions, particularly in passing corners, when the slightest derangement in the seat would render the action of the horse irregular.

When a horse gallops false, or is disunited, the trooper is ordered to take the trot and pass to the rear of the column, taking care not to interfere with those who follow. When he arrives at the rear, he resumes *the gallop*.

The troopers should make but a turn or two *at the gallop* to each hand, and should always be required to pass *to the trot* in order to change hand.

When the troopers manage their horses well, the distance between is generally reduced to four feet.

The rear rank is carried through the same exercise, and then both ranks at once.

To gallop on the circle.

432. When the troopers have been sufficiently exercised *at the gallop* on straight lines, the instructor causes them to make a few turns on the circle, following the principles laid down in No. 416.

This exercise is commenced on very large circles; the diameter is diminished as the troopers become more skilful.

WHEELINGS.

433. There are two kinds of wheels; *the wheel on a fixed pivot*, and *the wheel on a movable pivot*. The wheel is always on a *fixed pivot*, except when the command is *right* (or *left*) — *turn*. The troopers should execute this movement without disuniting, and without ceasing to observe the alignment.

In every kind of wheel, the conductor of the marching flank should measure with his eye the arc of the circle he is to pass over, so that it may not be necessary for the files to open or close. He turns his head occasionally towards the pivot; if he perceives that the troopers are too much crowded, or too open, he increases or diminishes the extent of his circle gradually. Each trooper of the front rank should describe his circle in the ratio of the distance at which he may be from the pivot. During the wheel, the troopers should turn the head slightly towards the marching flank, to regulate the rapidity of their march and to keep themselves aligned; they should also feel the boot lightly on the side of the pivot, in order to remain closed to that side. They should yield to pressure coming from the pivot, and resist that from the opposite direction. The horses are slightly turned towards the pivot, in order to keep them on the circular line they have to pass over.

The wheel on a fixed pivot.

434. The object of the wheel on a fixed pivot is to pass from the order of battle to the order of column, and from the order of column

to the order of battle. The trooper who forms the pivot of the wheel turns upon his own ground, without advancing or reining back, and without passing to the right or left.

The wheelings are executed at first in single rank; for this purpose the front rank is marched forward, and halted when arrived at a distance from the rear rank equal to double its front. The ranks being aligned, the instructor commands:

1. *Squad in circle right* (or *left*) *wheel.* 2. MARCH.

(Fig. 106.) At the command *march*, the troopers put themselves in motion, turning the head towards the marching flank; the flank file conducts the flank *at a walk*, measuring with the eye the extent of the circle he is to pass over, that neither opening nor closing may be caused in the rank, and that the troopers may keep aligned. The pivot man turns upon his own ground, regulating himself upon the marching flank.

When the squad has executed several wheels, to halt it, the instructor commands:

1. *Squad.* 2. HALT. 3. *Left* (or *right*) — DRESS. 4. FRONT.

At the command *halt*, the troopers straighten their horses and halt with steadiness. At the command *left* (or *right*) — *dress*, they align themselves to the side indicated. At the command *front*, turn the head to the front.

The two ranks are then marched forward, preserving between them the same distance, and made to recommence the wheel. When the instructor wishes the squad to take the direct march, he commands:

1. FORWARD. 2. *Guide left* (or *right*).

At the command *forward*, the pivot resumes the gait at which it was previously marching. All the other troopers straighten their horses, and the two flanks move forward at the same gait, conforming to the principles of the direct march. At the command *guide left* (or *right*), the troopers regulate their movements towards the side indicated.

If the squad is wheeling to the right, and the instructor wishes it to change the wheel to the left without halting, he commands:

1. *Squad in circle, left wheel.* 2. MARCH.

At the command *march*, the left flank halts, and becomes the pivot. The right flank, assuming the gait at which the left flank

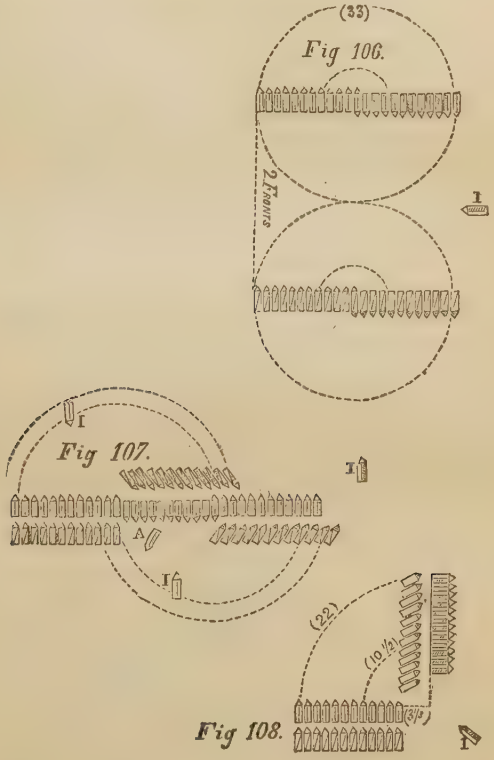


Fig 106.

Fig 107.

Fig 108.

was marching, moves forward, and describes a circle proportionate to the extent of the front. All the other troopers straiten their horses, and guide them so as to pass new circles in the inverse sense.

435. The troopers being sufficiently exercised at the wheels in single rank *at the walk* and *the trot*, the ranks are closed and the wheels executed in double ranks. The instructor commands:

1. *Squad in circle, right* (or *left*) *wheel.* 2. MARCH.

(Fig. 107.) At the command *march*, the troopers of the front rank execute the movement as prescribed above. The troopers of the rear rank turn the head and carry the hand towards the marching flank, so that each one may be out of the direction of his file-leader by two troopers. For this purpose, the moment the wheel commences, each rear rank man executes *a quarter turn to the left*, sustaining the haunches of his horse with the right leg, when the wheel is to the right, or *a quarter turn to the right*, when the wheel is to the left, keeping during the wheel in the direction of his new file-leader, and remaining at the distance of two feet from the front rank.

To stop the wheel, the instructor commands:

1. *Squad.* 2. HALT. 3. *Left* (or *right*) DRESS. 4. FRONT.

At the command *squad*, the rear rank men straiten their horses, and return to the direction of their file-leaders. All the troopers *halt* at the command. At the command *left* (or *right*) *dress*, they align themselves towards the side indicated. At the command *front*, turn the head to the front.

When the instructor wishes the squad to resume the direct march, he commands:

1. FORWARD. 2. *Guide left* (or *right*).

At the command *forward*, the rear rank men replace themselves behind their file-leaders, and march straight forward.

The squad wheeling to the right, to wheel to the opposite side without halting, the instructor commands:

1. *Squad in circle, left wheel.* 2. MARCH.

At the command *in circle left wheel*, the rear rank men return to the direction of their file-leaders. At the command *march*, the troopers conform to what has already been laid down.

The squad being halted, to place it in a direction perpendicular to the original front, the instructor commands:

1. *Squad right* (or *left*) *wheel.* 2. MARCH. 3. HALT. 4. *Left* (or *right*) — DRESS. 5. FRONT.

Which is executed on the same principles as the wheel on a fixed pivot.

436. The squad being at the halt, to face it to the rear, the instructor commands:

1. *Squad right* (or *left*) *about, wheel.* 2. MARCH. 3. HALT. 4. *Left* — DRESS. 5. FRONT.

Which is executed as *in circle to the right* or *left*, the squad passing over a half circle.

437. The squad being at a halt, to place it towards its right in a direction oblique to the original, the instructor commands:

1. *Squad right* (or *left*) *half wheel.* 2. MARCH. 3. HALT. 4. *Left* (or *right*) — DRESS. 5. FRONT.

Which is executed on the principles of the wheel on a fixed point.

The squad being on the march, the same movements are executed at the commands: 1. *Squad right* (or *left*) *wheel, right* (or *left*) *about wheel, right half* (or *left half*) *wheel.* 2. MARCH. 3. FORWARD. 4. *Guide right* (or *left*).

At the command *march*, the wheeling flank wheels at the gait at which the platoon was marching; the pivot flank halts. At the command *forward*, the pivot resumes its original pass, and the two flanks move forward at the same gait.

To wheel on a movable pivot.

438. The wheel on a movable pivot is employed in the successive changes of direction in column. The conductor of the marching flank should measure his gait, and describe his arc of circle so as to cause the files neither to open or close. The pivot describes *an arc of five paces*, in slackening the gait. The centre men preserve the gait at which the squad was marching. At the

end of the wheel, the marching flank and the pivot resume the gait at which they originally marched.

The squad being on the march, to cause it to change direction, the instructor commands:

1. *Left* (or *right*) — TURN. 2. FORWARD.

(Fig. 108). At the command *left* (or *right*) the pivot prepares to slacken, and the marching flank to augment the gait. At the command *turn*, the squad turns to the left, or to the right, the pivot slackening its gait, in describing *an arc of five paces;* the marching flank augments its gait, and regulates itself by the pivot during the whole of the wheel. At the command *forward*, all the troopers straighten their horses, the pivot and marching flank move forward in the gait at which the squad was originally marching.

SABRE EXERCISE.

439. For instruction in the use of the sabre the men of the squad are on foot, and in one rank about nine feet apart.

The right side of the gripe is the side opposite the guard.

The left side of the gripe is the side next the guard.

Tierce is the position in which the edge of the blade is turned towards the right, the nails downwards.

Quarte is the position in which the edge of the blade is turned to the left, the nails upwards.

440. The squad being in position, the instructor commands:

Draw — SABRE.

Two times and two motions.

First motion. At the first part of the command, which is *draw*, turn the head slightly to the left, without changing the position of the body; unhook the sabre with the left hand, and bring the hilt to the front; run the right wrist through the sword-knot; seize the gripe, draw the blade six inches out of the scabbard, pressing the scabbard against the thigh with the left hand, which secures it at the upper ring, and turn the head to the front.

Second motion. At the last part of the command, which is *sabre,* draw the sabre quickly, raising the arm to the full extent; make a slight pause, carry the blade to the right shoulder, the back of it against the hollow of the shoulder, the wrist resting against the hip, the little finger on the outside of the gripe. This position is the same when mounted, except that the wrist then naturally falls upon the thigh.

Present — SABRE.

One time and one motion.

441. At the last part of the command, which is *sabre,* carry the sabre to the front, the arm half extended, the thumb opposite to, and six inches from the neck, the blade perpendicular, the edge to the left, the thumb extended on the right side of the gripe, the little finger by the side of the others.

Carry — SABRE.

442. At the command *sabre,* carry the back of the blade against the hollow of the shoulder, the wrist resting against the hip, the little finger on the outside of the gripe.

Return — SABRE.

Two times and two motions.

443. *First motion.* At the command *return,* execute the first motion of *return sabre.*

Second motion. At the command *sabre,* carry the wrist opposite to, and six inches from, the left shoulder; lower the blade and pass it across and along the left arm, the point to the rear; turn the head slightly to the left, fixing the eyes on the opening of the scabbard; return the blade, free the wrist from the sword-knot, turn the head to the front, drop the right hand to the side, and hook up the sabre with the hilt to the rear.

GUARD.

One time and one motion.

444. At the command *guard,* carry the right foot two feet from

the left, the heels on the same line; place the left hand, closed, six inches from the body, and as high as the elbow, the fingers towards the body, the little finger nearer than the thumb (*position of the bridle-hand*); at the same time, place the right hand in *tierce* at the height of, and three inches from the left hand, the thumb extended on the back of the gripe, the little finger by the side of the others, the point of the sabre inclined to the left, and two feet higher than the hand.

In tierce—POINT.

One time and three motions.

445. *First motion.* At the command *point*, raise the hand in tierce as high as the eyes, throw back the right shoulder, carrying the elbow to the rear, the point of the sabre to the front, the edge upwards.

Second motion. Thrust to the front, extending the arm to the full length.

Third motion. Return to the position of guard.

In quarte—POINT.

One time and three motions.

446. *First motion.* At the command *point*, lower the hand in quart near the right hip, the thumb extended on the right side of the gripe, the point a little higher than the wrist.

Second motion. Thrust to the front, extending the arm the full length.

Third motion. Return to the position of guard.

Left—POINT.

One time and three motions.

447. *First motion.* At the command *point*, turn the head to the left, draw back the hand in tierce towards the right, at the height of the neck, the edge upwards, the point directed to the left.

Second motion. Thrust to the left, extending the arm to its full length.

Third motion. Return to the position of guard.

Right — POINT.

One time and three motions.

448. *First motion.* At the command *point,* turn the head to the right, carry the hand in quarte near the left breast, the edge upwards, the point directed to the right.

Second motion. Thrust to the right, extending the arm to its full length.

Third motion. Return to the position of guard.

Rear — POINT.

One time and three motions.

449. *First motion.* At the command *point,* turn the head to the right and rear, bring the hand in quarte opposite to the right shoulder, the arm half extended, the blade horizontal, the point to the rear, the edge upwards.

Second motion. Thrust to the rear, extending the arm to its full length.

Third motion. Return to the position of guard.

Against infantry, left — POINT.

One time and three motions.

450. *First motion.* At the command *point,* turn the head to the left, raise the hand in tierce near the neck, the point of the sabre directed to the height of the breast of a man on foot.

Second motion. Thrust down in tierce.

Third motion. Return to the position of guard.

Against infantry, right — POINT.

One time and three motions.

451. *First motion.* At the command *point,* turn the head to the right, carry the hand in quarte near the right hip, the point of the sabre directed at the height of the breast of a man on foot.

Second motion. Thrust in quarte.

Third motion. Return to the position of guard.

Front — CUT.

One time and three motions.

452. *First motion.* At the command *cut,* raise the sabre, the arm half extended, the hand a little above the head, the edge upwards, the point to the rear, and higher than the hand.

Second motion. Cut, extending the arm to its full length, and give a back-handed cut, horizontally to the rear.

Third motion. Return to the position of guard.

Right in tierce and carte — CUT.

One time and four motions

453. *First motion.* At the command *cut,* execute the first motion of *right cut.*

Second motion. Execute the second motion of *right cut.*

Third motion. Turn the hand in quarte, and cut horizontally.

Fourth motion. Return to the position of guard.

Left in quarte and tierce — CUT.

One time and four motions.

454. *First motion.* At the command *cut,* execute the first motion of *left cut.*

Second motion. Execute the second motion of *left cut.*

Third motion. Turn the hand in tierce, and cut horizontally.

Fourth motion. Return to the position of guard.

In tierce — PARRY.

One time and two motions.

455. *First motion.* At the command PARRY, carry the hand quickly a little to the front and right, the nails downwards, without moving the elbow; the point inclined to the front, as high as the eyes, and in the direction of the right shoulder; the thumb extended on the back of the gripe, and pressing against the guard.

Second motion. Return to the position of guard.

In quarte — PARRY.

One time and two motions.

456. *First motion.* At the command *parry,* turn the hand and carry it quickly to the front and left, the nails upwards, the edge to the left, the point inclined to the front, as high as the eyes, and in the direction of the left shoulder; the thumb extended on the back of the gripe, and resting against the guard.

Second motion. Return to the position of guard.

For the head — PARRY.

One time and two motions.

457. *First motion.* At the command *parry,* raise the sabre quickly above the head, the arm nearly extended, the edge upwards, the point to the left, and about six inches higher than the head. The hand is carried more or less to the right, left, or rear, according to the position of the adversary.

Second motion. Return to the position of guard.

Against infantry right — PARRY.

One time and three motions.

458. *First motion.* At the command *parry,* turn the head to the right, throwing back the right shoulder, raise the sabre, the arm extended to the right, and rear, the point upwards, the hand in tierce, the thumb extended on the back of the gripe, the edge to the left.

Second motion. Describe a circle quickly on the right, from rear to front, the arm extended; turn aside the bayonet with the back of the blade, bringing the hand as high as the head, the point upwards.

Third motion. Return to the position of guard.

Against infantry left — PARRY.

One time and three motions.

459. *First motion.* At the command *parry,* turn the head to the left, raise the sabre, the arm extended to the front and right, the

point upwards, the hand in tierce, the thumb extended on the back of the gripe, the back of the blade to the front.

Second motion. Describe a circle quickly on the left, from front to rear along the horse's neck, the arm extended; turn aside the bayonet with the back of the blade, bringing the hand, still in tierce, above the left shoulder.

Third motion. Return to the position of guard.

460. When the troopers begin to execute the above cuts, thrusts, and parries, correctly, the instructor requires them to make the application of them by combined motions, as follows:

In tierce—POINT AND FRONT CUT.
In quarte—POINT AND FRONT CUT.
Left—POINT AND CUT.
Right—POINT AND CUT.
Rear—POINT AND CUT.
Against infantry right—POINT AND CUT.
Against infantry left—POINT AND CUT.

Inspection of SABRE.

One time and seven motions.

461. *First motion.* At the word *sabre,* execute the first time of *draw sabre.*

Second motion. Execute the second time of *draw sabre.*

Third motion. Present sabre.

Fourth motion. Turn the wrist inwards to show the other side of the blade.

Fifth motion. Carry the sabre to the shoulder, as is prescribed in *carry sabre.*

Sixth motion. Execute the first time of *return sabre.*

Seventh motion. Execute the second time of *return sabre*

MANUAL FOR A BREECH-LOADING CARBINE, OR RIFLE, THE TROOPERS MOUNTED.

462. Whenever the troopers are not exercising with the carbine, or rifle, it is slung by a belt, which passes from the left shoulder to

the right side, the muzzle down, and in such a position that it may be seized by the right hand at any moment, and at the same time be entirely out of the way when the trooper is exercising with the sabre or pistol.

The trooper, in conducting his horse to the ground before mounting, has the carbine passed over the right shoulder, the muzzle in the air.

After mounting let the carbine fall by the side.

At the first command to dismount, seize the carbine with the right hand a little above the band, and pass it over the right shoulder, the muzzle in the air.

463. The trooper being mounted, with the carbine hanging by his right side, the instructor commands:

Advance — CARBINE (or RIFLE).

Two times.

At the command *advance*, seize the carbine at the small of the stock with the right hand. At the command *carbine* (or *rifle*), elevate it, and place the butt upon the thigh, the muzzle at the height of the eye and opposite to the right shoulder, the lock to the front.

To load.

464. The squad being in the position of *advance carbine* (or *rifle*), the instructor commands: *Load in four times.*

1. LOAD.

One time and two motions.

First motion. At this command, place the carbine (or rifle) in the left hand, which seizes it a little below the band, the thumb along the stock, the muzzle elevated, at the height of, and opposite to, the left shoulder, with the right hand move back the catch, and seize the lever with the thumb and first two fingers.

Second motion. Spring open the chamber, and carry the hand to the cartridge-box and open it.

2. *Charge* — CARTRIDGE.

One time and two motions.

First motion. At the command *cartridge*, draw a cartridge, and insert it in the barrel, and seize the lever with the thumb and first two fingers.

Second motion. Draw back the lever to its place, half cock, remove the old cap, and carry the hand to the cap box, and open it.

3. PRIME.

One time and one motion.

At the command *prime*, place a cap on the nipple, press it down with the thumb, let down the cock, and seize the piece by the small of the stock with the right hand.

4. *Advance* — CARBINE.

One time.

As prescribed above.

To fire.

465. The squad being in the position of *advance carbine*, the instructor commands:

READY.

One time.

At this command let fall the carbine in the left hand as in the first motion of load, cock it, and return to the position of *advance carbine.*

AIM.

One time.

At this command, carry the butt to the shoulder with the right hand, support the piece with the thumb and first finger of the left hand, a little below the barrel, the others closed in order to hold the reins without slackening them; place the face against the stock,

shut the left eye, direct the right along the barrel to aim, and place the forefinger of the right hand on the trigger.

FIRE.

At the command *fire*, pass the forefinger against the trigger and fire, without lowering the head or turning it, and remain in this position.

If, after firing, the instructor wishes to load, he commands:

LOAD.

At the command *load*, bring down the carbine to the first motion of *load;* load at will, and take the position of *advance carbine.*

If, after firing, the instructor does not wish to load, he commands:

Advance — CARBINE.

Which is done as already prescribed.

To drop the carbine, the instructor commands:

Drop — CARBINE.

One time.

At the command *carbine*, lower the muzzle of the carbine, and cast the butt to the rear.

Inspection of arms.

466. The instructor commands:

Inspection — CARBINE.

One time and two motions.

First motion. At the command *carbine*, take the position of *advance carbine.*

Second motion. Drop the carbine.

MANUAL FOR COLT'S REVOLVERS.[1]

467. The troopers being mounted, the pistol either in the holster or pistol-case, the instructor commands:

[1] With very little modification this manual will serve for Colt's Carbine and Rifle.

Draw — PISTOL.[1]

Two times and two motions.

First motion. At the first command, unbuckle the holster or pistol case, seize the pistol by the handle with the right hand, holding it between the palm of the hand and the three last fingers, the fore finger resting on the guard, the thumb on the handle

Second motion. At the second command, draw out the pistol and elevate it, the guard to the front; the wrist at the height of, and six inches from, the right shoulder.

Load in six times.

1. LOAD.

One time and one motion.

Place the pistol in the bridle hand, holding it by the handle in front of the body, the hammer between the thumb and fore-finger, and turned to the left, the muzzle pointing upwards. Carry the right hand to the cartridge-box, and open it.

2. *Handle* — CARTRIDGE.

One time and one motion.

Seize the cartridge with the thumb and the first two fingers, and carry it to the mouth.

3 *Tear* — CARTRIDGE.

One time and one motion.

Bite off the end and carry the cartridge opposite the chamber nearest the lever, or, if the cartridge is furnished from the manufactory with the pistol, seize the end of the cord, which projects from one end of the cartridge, between the teeth, tear open the outer case, and take out the cartridge.

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[1] If it is a carbine or rifle, the command will be, *advance—carbine* (or *rifle*).

4. *Charge* — CARTRIDGE.

One time and two motions.

First motion. Empty the powder into the chamber, and insert the ball, pressing it down as far as possible with the thumb and fore-finger; or, if it be a cartridge furnished from the manufactory, simply insert it in the chamber, pressing the ball down as before.

Second motion. Turn the pistol with the left hand, bringing the hammer towards the body, and cock it with the thumb of the right hand.

5. *Ram* — CARTRIDGE.

One time and two motions.

First motion. Seize the lever with the catch, with the thumb and fore-finger of the right hand, ram down the ball, and replace the lever.

Second motion. Let down the hammer with the right hand, and carry the hand to the cartridge-box.

Repeat as above directed until all the chambers are loaded.

6. PRIME.

One time and two motions.

First motion. Lower the muzzle towards the right side by turning the wrist of the bridle-hand, the muzzle pointing downwards, the hammer to the front, the left wrist resting against the stomach; half-cock the pistol with the left thumb; turn the cylinder with the thumb and forefinger of the right hand until it clicks. Take a cap and press it on the cone. Turn the cylinder again until it clicks, and so on until all the cones are capped, the hammer resting on the safety notch.

Second motion. Seize the pistol at the handle with the right hand, and bring it to the position of *draw pistol.*

468. The instructor wishing to fire, will command:

READY.

One time and two motions.

First motion. Place the pistol in the left hand, the little finger touching the key, the barrel nearly vertical, the muzzle a little in-

clined to the left and front, the guard to the front, the thumb on the head of the hammer, the forefinger along the guard.

Second motion. Cock the pistol, and bring it to the position of *draw pistol.*

AIM.

One time.

Lower the pistol, the arm half extended, and place the fore-finger lightly on the trigger, the muzzle directed to the height of a man's waist.

FIRE.

One time.

Press the forefinger steadily on the trigger, fire, and retake the position of *draw pistol.*

The men being at a ready, and the instructor wishing to fire all the barrels in quick succession, will give intimation to that effect, and command:

1. AIM. 2. FIRE.

The men will aim and fire, come to the first position of ready, cock, aim, fire again, and so continue until the pistol is discharged; then take the position of *draw pistol.*

469. The instructor wishing to reload, commands:

Load at will.

LOAD.

One time.

Load the six chambers as heretofore directed, and take the position of *draw pistol.*

Return — PISTOL.

One time.

Lower the muzzle of the pistol, and return it to the muzzle, or pistol-case.

ARTICLE VIII.

SCHOOL OF THE TROOP.

470. THE troopers being sufficiently instructed to manage their horses and use their arms, are passed to the *school of the troop*. The object of this school is to teach them to exercise properly together, and to execute all the movements of the troop, whether in column of platoons, or in line.

Each movement, after having been correctly executed by the right, is repeated by the left.

When the movements are all executed *at the walk*, the instructor causes them to be repeated *at the trot*, requiring always the same simultaneous action, and the same precision. This gradation is also followed for exercise *at the gallop;* but the horses should not be kept long at this gait.

The troop is composed of all the troopers of a single company; for exercising it is formed in two ranks, and divided into two platoons.[1] The troop is one half of the squadron, and when it forms a part of the squadron constituting one of the divisions, the officers and non-commissioned officers are posted as directed for a squadron in line; but where the troop acts singly, as will be supposed in the *school of the troop*, the officers and non-commissioned officers take posts as directed for a company acting singly. (See No. 17.)

For the *school of the troop*, the troopers are under arms; if armed with the carbine it is always slung.

471. The troop being formed in two ranks, at open order, the

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[1] If the platoons are small, or if the instructor wishes to exercise the troop in the school of the squadron, he may cause it to be formed in a single rank.

troopers and file-closers at the head of their horses, the chiefs of platoon mounted, facing the platoon, at ten paces from and opposite the centre, the captain commands:

1 ATTENTION. 2. *Right*—DRESS. 3. FRONT.

He then commands:

In each platoon—and in each rank—Count by fours.

At this command, the troopers count off in both platoons at once, commencing on the right of each rank.

The captain then gives the command *mount*, which is executed as explained in the school of the trooper, No. 407.

At the command *form*—RANKS, the chiefs of platoon move forward, face to the front by *turning to the right about*, and place themselves before the centre of their platoon, the croup of their horses one pace from the head of the horses of the front rank. The file-closers follow the rear rank.

General principles of alignment.

472 The troopers, in order to align themselves, should regulate their shoulders upon those of the men on the side of the alignment, and fix the eyes upon the line of the eyes, so as to perceive the breast of the second trooper of their rank on the alignment; for this purpose, they should turn the head, remaining square upon their horses, feel lightly the boot of the man on the side of the alignment, and keep the horses straight in the ranks, that all may have a parallel direction.

The troopers of the rear rank, independently of the alignment, should be exactly behind their file-leaders, and in the same direction, taking care to preserve the distance of two feet from head to croup.

Successive alignment of the files in the troop.

473. The two files of the right (or left) are moved forward ten paces, and aligned parallel to the troop by the commands:

1. *Two files from the right* (or *left*) *forward.* 2. MARCH 3. HALT. 4. *Right* (or *left*) — DRESS. 5. FRONT.

The captain then commands:

1. *By file right* (or *left*) — DRESS. 2. FRONT.

At the command *dress*, each file moves forward in succession and steadily, the troopers turning the head to the right, and taking the last steps slowly, in order to arrive abreast of the files already formed without passing beyond the alignment, observing then to halt, give the hand, relax the legs, and keep the head to the right until the command *front.*

Each file executes the same movement when the preceding one has arrived on the base of alignment, so that only one file may align itself at the same time.

At the command *front*, turn the head to the front. The captain gives the command *front* when the last file is aligned.

When the troopers execute these alignments, this instruction is repeated in giving the two files of the right an oblique direction. For this purpose, the two files having marched forward four paces, as has been prescribed, execute *a half turn to the right* (or *left*), and march six paces in this new direction.

The troop being unmasked, the remainder of the movement is executed by the same commands, and on the same principles as in the last case; each file, as it arrives nearly opposite the place it is to occupy, executes a *half turn to the right* (or *left*), so that having left the troop by one straight line, it arrives upon the new alignment by another.

474. The two files of the right, or left, are made to rein back four paces, and align themselves parallel to the troop, and opposite the place they occupied in it, by the commands:

1. *Two files from right* (or *left*) *backwards.* 2. MARCH. 3. HALT. 4. *Right* (or *left*) — DRESS. 5. FRONT.

The captain then commands:

1. *By file — right* (or *left*), *backward* — DRESS. 2. FRONT.

At the command *dress*, each file reins back in succession, keeping perfectly straight, the troopers turning the head to the right, and passing a little to the rear of the files already formed, in order to come up abreast of them by a movement to the front, which renders the alignment more easy.

The troopers of the front rank rein back slowly, those of the rear rank regulate themselves upon their file-closers, preserving always their proper distance.

At the command *front*, turn the head to the front.

475. The alignment is then executed by twos (or by fours). For this purpose, the two or four files of the right move forward as has been prescribed, and the captain commands:

1. *By twos* (or *by fours*) — *right* (or *left*) — DRESS. 2. FRONT.

At the command *dress*, the files align themselves in succession by twos (or by fours), following the principles prescribed for the alignment by file, being particular to set out and arrive upon the alignment together.

At the command *front*, turn the head to the front.

Alignment of the troop.

476. The captain, after having placed the right guide, so that no trooper will be compelled to rein back, commands:

1. *Right* — DRESS. 2. FRONT.

At the command *right dress*, all the troopers align themselves steadily but promptly to the right.

The troop being aligned, the captain commands:

FRONT.

The captain causes three different alignments to be executed by the left, following the same principles, but by inverse means.

To open and close the ranks.

477. To open the ranks, the captain commands:

1. *Rear rank open order.* 2. MARCH. 3. *Right* — DRESS. 4. FRONT.

At the command *march,* the front rank remains immovable, the rear rank reins back six paces, each trooper preserving the direction of his file-leader. The file-closers rein back until they are six paces from the rear rank. The chiefs of platoon move forward six paces, and face the centre of the platoons by *turning to the left about.*

At the command *right dress,* the rear rank dresses to the right. At the command *front,* the head is turned to the front.

To close the ranks the captain commands:

1. *Rear rank close order.* 2. MARCH. 3. *Right* — DRESS. 4. FRONT.

At the command *march,* the rear rank closes upon the front to the distance of two feet, each trooper taking care to preserve the direction of his file-leader. The chiefs of platoon resume their places by a *turn about to the right,* and the file-closers take their proper distances from the rear rank.

At the command *right dress,* the troop is aligned to the right. At the command *front,* the head is turned to the front.

To rein back the troop.

478. The troop being at a halt, the captain commands:

1. *Troop backwards.* 2. *Guide right* (or *left*). 3. MARCH.

At the command *march,* all the troopers rein back at once, regulating their movements by those of the right guide.

When the troop has reined back some steps, the captain commands:

1. *Troop.* 2. HALT. 3. *Right* (or *left*) — DRESS. 4. FRONT.

To break the troop by file.

479. The troop being in line, the captain commands:

1. *By file.* 2. MARCH.

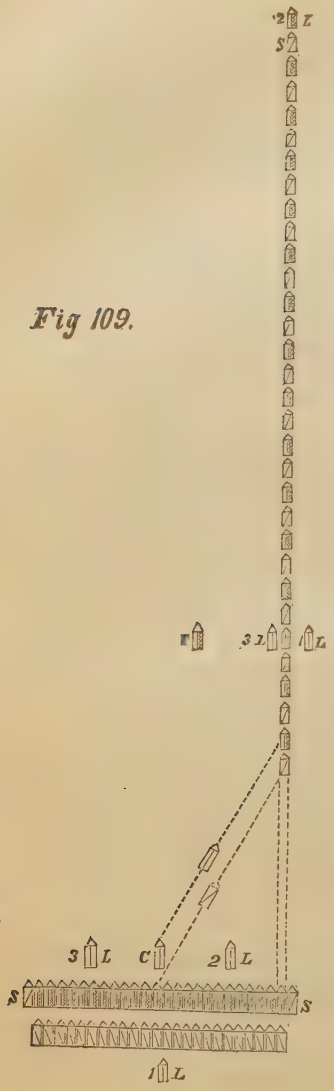


Fig 109.

(Fig. 109). At the command *by file,* the troopers of the first file (front and rear rank) *gather* their horses, and the others in succession as soon as the file on the right is in motion. The chief of the first platoon, followed by the first sergeant, or guide of the right, posts himself in front of the first file.

At the command *march,* the chief of the platoon, the guide, and the first file on the right moves straight to the front; they are followed by the next file; each files moves off when the haunches of the horses of the rear rank man which has broken, arrives at the head of the horses of the front rank; each file marches six paces straight to the front, makes *a quarter-turn to the right,* and marches in the new direction until it reaches its place in the column, when it makes a *quarter-turn to the left.*

The chief of the second platoon breaks with his first file, keeping abreast with, and one pace to his left. The first lieutenant is in the rank of file-closers, opposite the centre of the column, and the second sergeant or guide of the left, follows the last file.

To break the platoon by the

left, the movement is executed following the same principles, but by inverse means, at the commands:

1. *By the left file.* 2. MARCH.

Direct march in column by file.

480. The troopers should keep their horses straight, and march at a free and equal gait; they should keep their eyes to the front, and continue in the direction of the column, so as to perceive only the trooper who marches before them, to march at the same gait with him, preserving always the distance of two feet from head to croup, that his own horse may not tread upon the heels of the horse in front. This distance should be recovered gradually when lost.

The column changes direction to the right or left, as prescribed No. 410.

To halt the column, the captain commands:

1. *Column.* 2. HALT.

At the command *halt,* the troopers stop together in the direction of their file-leaders and at their distances, taking care to prevent the horses from stepping back.

To move off, the captain commands:

1. *Column forward.* 2. MARCH.

At the command *march,* the troopers move off together.

The column being at a halt, if the captain wishes to commence the move *at a trot,* he conforms to what is prescribed No. 423. In this case the chiefs of platoon move off promptly *at the trot,* that the troopers in their rear may take this gait at once, without marching first *at a walk.*

Individual oblique march.

481. The column marching by file, the captain commands:

1. *Left* (or *right*) *oblique.* 2. MARCH.

At the command *march,* each trooper executes a *quarter turn to*

the left, and moves forward in his new direction, all following parallel lines, and regulating themselves towards the right, in order to keep on the same line, and to preserve their distances on that side.

To return to the primitive direction, the captain commands:

FORWARD.

At this command, the troopers return to the original direction, by a *quarter turn to the right*, in advancing, and move forward in the direction of their file-leaders.

The troop marching in column by file, to form it to the front, to the left, or on right, into line.

482. The column marching right in front, to form it to the front into line, the captain commands:

1. *Front into line.* 2. MARCH. 3. *Right* — DRESS. 4. FRONT.

(Fig. 110.) At the command *march*, the first file continues to march straight forward. The others immediately commence obliquing to the left, march in their new direction, and each file makes *a quarter turn to the right* on coming opposite to the place he is to occupy in the troop. When the first file has marched twenty paces, the chief of the first platoon commands *halt*. At this command, it halts square to the front, the guide on the right of the front rank man; the other files come up in succession on the left of the first, and dress to the right.

At the command *front*, turn the head to the front.

The captain gives the command *right — dress*, immediately after *halt*, and commands front when the last file is aligned.

The column marching left in front, the movement is executed following the same principles, but by inverse means.

483. The column marching right in front, to form it into line upon its left flank, the captain commands:

1. *Left into line.* 2. MARCH. 3. *Left* — DRESS. 4. FRONT.

(Fig. 111.) At the command *march*, the first file turns to the left, and moves straight forward; the other files continue to march

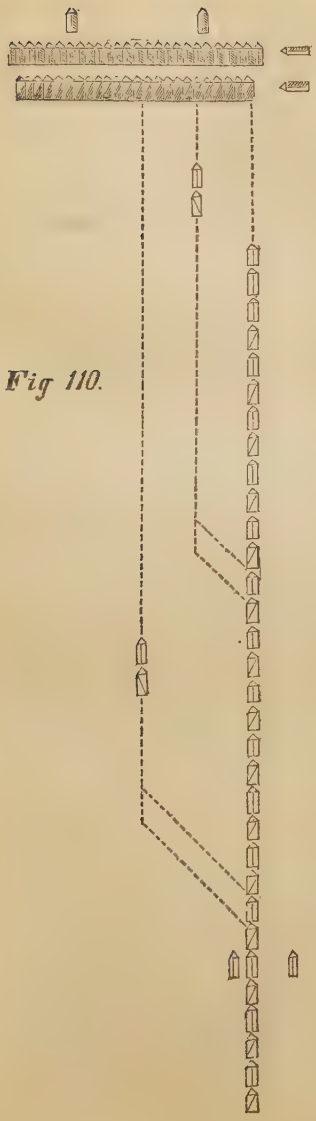


Fig 110.

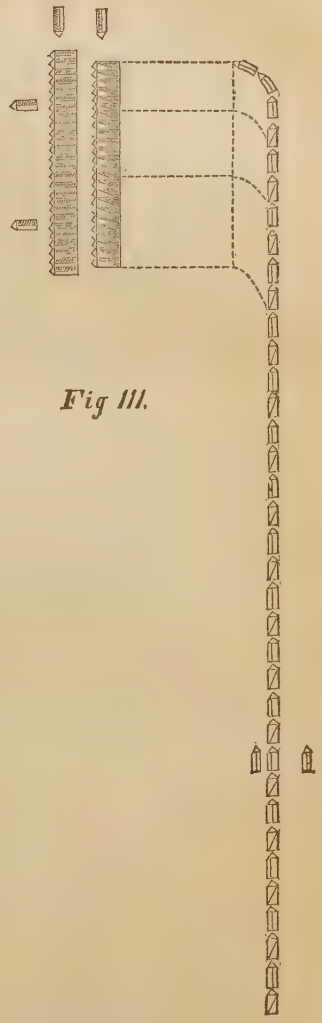


Fig 111.

on, and at two paces before arriving opposite the place they are to occupy in the troop, they turn in succession to the left.

When the first file has marched twenty paces, the chief of the first platoon commands *halt*. At this command it halts — the guide on the right of the front rank man; the other files come up and form in succession on the left of the first, and dress to the right.

At the command *front*, turn the head to the front. The captain gives the command *right — dress*, immediately after *halt*, and *front* when the last file is aligned.

A column marching left in front is formed into line on the right flank by inverse means.

484. The column marching right in front, to form in line upon the prolongation and in advance of its right flank, the captain commands:

1. *On right into line.* 2. MARCH. 3. *Right* — DRESS. 4. FRONT.

(Fig. 112.) At the command *march*, the first file turns to the right and moves straight forward; the other files continue to march on, and each turns in succession to the right, at one pace beyond the point where the one preceding turned.

When the first file has marched twenty paces, the chief of the first platoon commands *halt*. At this command it halts; the guide taking his place on the right of the front rank, the other files come up and form in succession on the left of the first, and dress to the right.

A column marching left in front, is formed into line on the left by inverse means.

To break the troop by twos or by fours.

485. The troop being in line, the captain commands:

1. *By twos* (or *by fours*). 2. MARCH. 3. *Guide left.*

(Fig. 113.) At the first command, the chief of the first platoon places himself in front of the two or four files of the right; the right guide places himself on his right. At the command *march*, the first two or four files of the right move straight to the front; they

Fig 112.

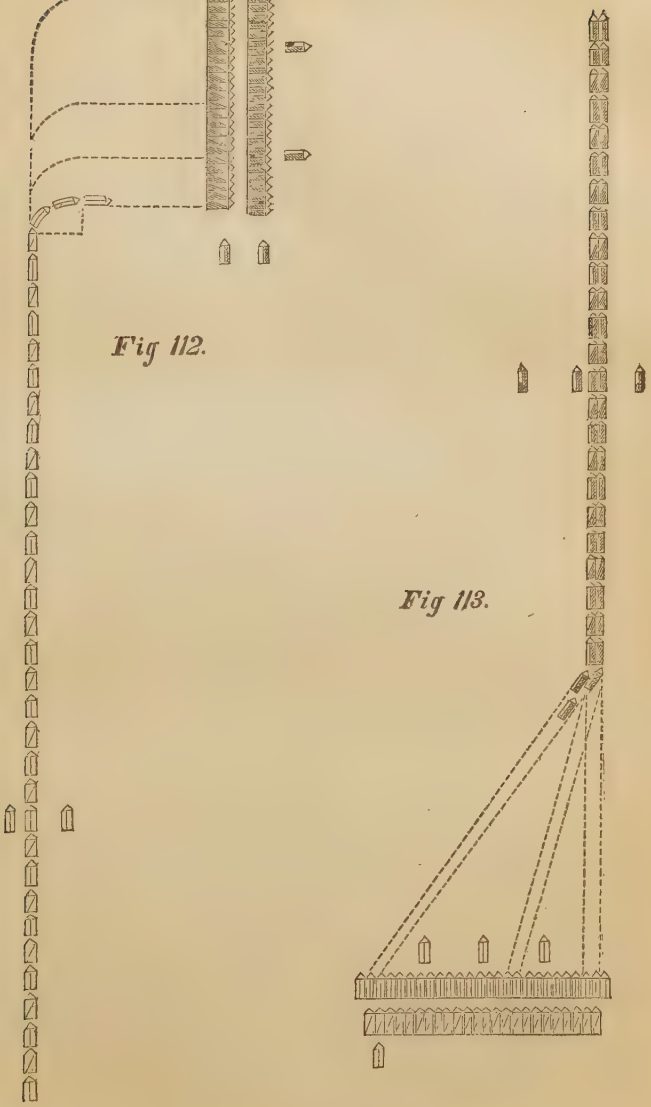


Fig 113.

are followed by the other files, who move off when the haunches of the horses of the rear rank are on a line with the heads of the horses of the front rank. These files march straight forward six paces, execute a *quarter turn to the right* by troopers, and march in this direction until they meet the column, when they take their places in it by making *a quarter turn to the left.*

The chief of the second platoon breaks with the first two or four files of his platoon, keeping abreast with them and at one pace from the flank of the column on the side of the guide, each rank of two or four preserving between them the distance of two feet.

The captain assures himself that the officers, the file-closers, and guide, are properly placed.

The trooper on the left of the first rank of twos (or fours) is guide of the column; he keeps his eyes to the front, moves straight forward, and marches so that the troopers of his rank may be at one pace from the croup of the horse of the chief of the first platoon. The trooper on the left of each of the other ranks, who is guide of his rank, preserves the head direct, and keeps at the distance of two feet from his file-leader, and in the same direction; the other troopers of each rank look occasionally towards the guide, in order to align themselves and regulate their march upon him. They feel the boot lightly towards that side, and yield to all pressure coming from it. When the march is by fours, they resist all pressure coming from the side opposite the guide.

The column marching by twos or by fours, the captain commands:

1. *Trot.* 2. MARCH.

At the command *march,* the troopers take the trot, taking care not to fret their horses.

When the column has marched a sufficient distance *at the trot,* the captain commands:

1. *Walk.* 2. MARCH.

486. The column marching in column of twos or fours, right in front, to change direction, the captain commands:

Head of the column to the left (or *right*).

At this command, the chief of the first platoon commands:

1. *Left*—TURN. 2. FORWARD.

At the command *left*, the left trooper, who is pivot, prepares to turn at the same gait, the trooper of the opposite side to lengthen his.

At the command *turn*, the first rank of twos or fours turns to the left. The pivot turns without changing his gait, describing an *arc of a circle of five paces.* The trooper on the opposite side turns in lengthening the gait; the other troopers turn the head towards the marching flank, to regulate their rate of march, feeling lightly the boot on the side of the pivot. At the command *forward*, the troopers who had increased the gait, resume the precise pace at which they were before moving, and the head of the column marches straight forward in the new direction. Each rank executes the same movement, on arriving upon the ground where the first has turned.

The column marching by twos or by fours, the captain halts it, as prescribed, school of the trooper.

To recommence the march, he commands:

1. *Column forward.* 2. MARCH. 3. *Guide left.*

487. The column marching by twos or by fours, the captain commands:

1. *Left* (or *right*) *oblique.* 2. MARCH.

(Fig. 114.) At the command *march*, each trooper executes *a quarter turn to the left.* The trooper on the left of the first rank, who is guide of the column, moves straight forward in the new direction, and parallel to the chief of the first platoon. The trooper on the left of each of the other ranks, who is guide of his rank, moves forward also in the new direction, observing the guide of the column so as to keep on the same line, and in a parallel direction with him.

The other troopers move forward, looking occasionally to the left so as to align themselves upon their guide. Each one places the

Fig 114.

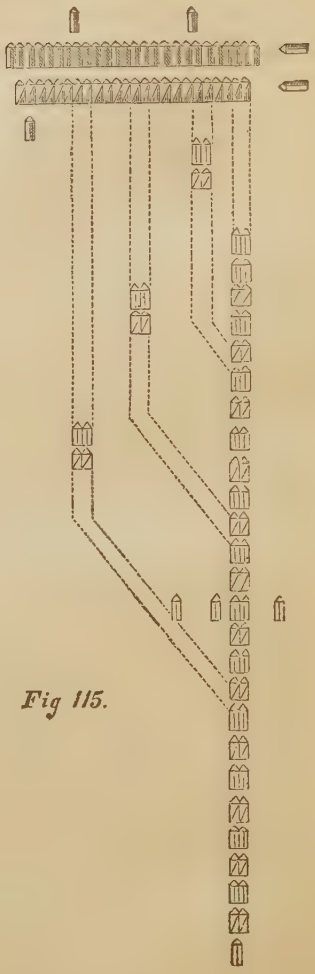


Fig 115.

left knee behind the right knee of the man on the left, and the head of his horse opposite the lower part of the neck of the horse on his left.

To return to the primitive direction, the captain commands:

FORWARD.

At this command, the troopers return to the original direction, by *a quarter turn to the right.*

The troop marching in column by twos or by fours, to form it to the front, to the left, or on right, into line.

488. The troop marching in column by twos or by fours, right in front, the captain commands:

1. *Front into line.* 2. MARCH. 3. *Right*—DRESS. 4. FRONT.

(Fig. 115.) At the command *march,* the first two (or four) files continue to march straight forward; when they have marched thirty paces, the chief of the first platoon commands:

HALT.

At this command, the first two (or four) files halt square to the front, the guide of the right returns to the right of the troop. All the other files of twos or fours oblique to the left, march in this direction, and come up in succession by *a quarter turn to the right* on coming opposite their places, and without command of the chiefs of platoon.

The captain, who moves to the right flank after the command *march,* commands the alignment when the chief of the first platoon commands *halt.*

As soon as the chiefs of platoon arrive upon the line, they place themselves at the centre of their platoons and align themselves. The guide of the left returns to the left of the troop, when the last two (or four) files arrive upon the line. The first lieutenant superintends the alignment of the rear rank, and then takes his post in rear of the centre.

489 The column marching right in front, to form it in line on its left flank, the captain commands:

1. *Left into line.* 2. MARCH. 3. *Right*—DRESS. 4. FRONT.

(Fig. 116.) At the command *march*, the four leading files turn to the left and move straight forward; when they have marched thirty paces, the chief of the first platoon commands:

HALT.

At this command, the two (or four) leading files halt, and the guide places himself on the right of the troop. All the other files continue to march on, and at three paces before arriving opposite the place they are to occupy in the troop, turn in succession to the left, without the command of the chiefs of platoon.

The captains, the first lieutenant, the chiefs of platoon, and the guide of the left, conform exactly to what is prescribed for *the front into line.*

490. The column marching right in front, to form line upon the prolongation and in advance of its right flank, the captain commands:

1. *On the right into line.* 2. MARCH. 3. *Right*—DRESS. 4. FRONT.

(Fig. 117.) At the command *march*, the four leading files turn to the right, and march straight forward; when they have marched thirty paces, the chief of the first platoon commands *halt.*

At this command, the four leading files halt, and the right guide takes his place on the right of the troop. All the other files continue to march forward, each turning to the right in succession, and without the commands of the chiefs of platoon, at the distance three paces beyond the point where the preceding rank has turned, forming to the left, and upon the alignment of the first.

The captain, the first lieutenant, the chiefs of platoon, and the left guide, conform exactly to what is prescribed for the *front into line.*

491. The troop is broken by the left, at the commands:

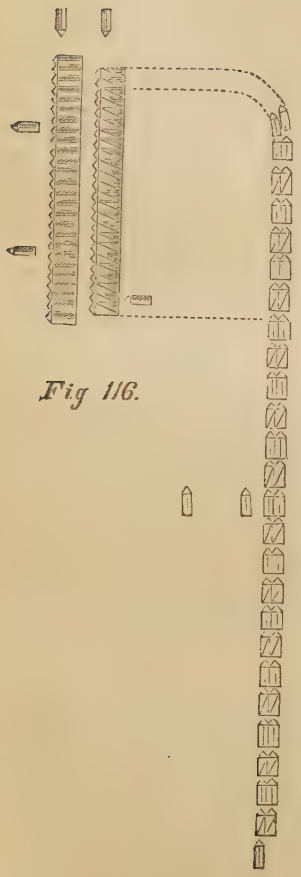


Fig 116.

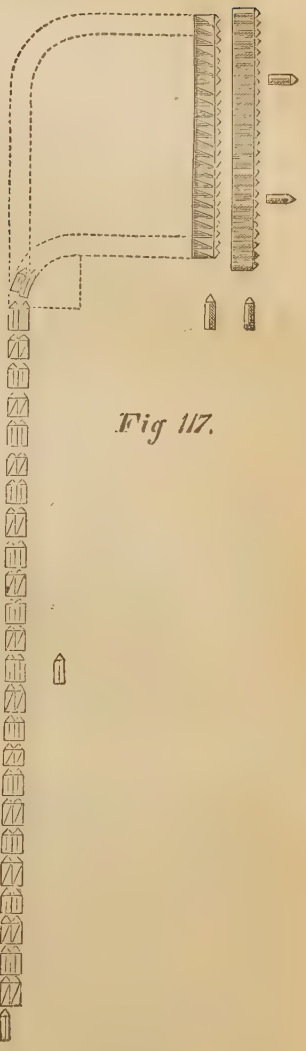


Fig 117.

1. *By twos* (or *by fours*) *from the left.* 2. MARCH. 3. *Guide right.*

The column is exercised at the march in column, the changes of direction, and the individual oblique marches. It is also exercised at the different formations, which are executed, following the same principles, but by inverse means, at the commands: 1. *Front* (*right* or *on left*) *into line.* 2. MARCH. 3. *Left* — DRESS. 4. FRONT.

492. When the troop has acquired precision and regularity in the formations at the different gaits, the captain exercises it in breaking by fours from a halt *at the trot*, and *at the gallop.*

To form the troop to the left in one rank.

493. The troop being formed in two ranks, the captain commands:

1. *Left into single rank.* 2. MARCH. 3. FRONT. 4. HALT. 5. *Right* — DRESS. 6. *Front.*

(Fig. 118.) At the command *march*, the front rank moves forward six paces, dressing by the right; the trooper on the left of the rear rank *turns to the left* and moves forward; he is followed by all the other troopers of that rank, who execute the same movement in succession.

At the command *front*, the troopers of the left of the rear rank turn to the right, and the other troopers in succession, when they have arrived nearly opposite the place they are to occupy in the rank.

At the command *halt*, the trooper on the left halts, and so do the others in succession, on arriving abreast of him.

At the command *right — dress*, all the troopers of the rear rank dress to the right.

At the command *front*, turn the head to the front.

To form the troop to the right in two ranks.

494. The troop being in one rank, the captain designates the trooper who is to be on the left of the front rank, also the one to be the right of the rear rank, and commands:

1. *Right into two ranks.* 2. MARCH. 3. *Right*—DRESS. 4. FRONT.

(Upper part of Fig. 118.) At the command *march*, the front rank moves forward six paces, dressing by the right; the trooper on the right of the rear rank *turns to the right* as soon as the front

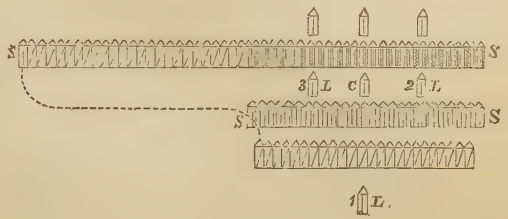
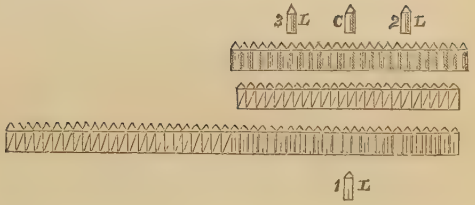


Fig 118.



rank has passed, and moves forward obliquely to the right; when he is nearly in rear of the trooper on the right of the front rank, he fronts by *turning to the left*. All the other troopers execute the same movement in succession, placing themselves exactly behind their file-leaders and at their proper distances.

At the command *right — dress*, all the troopers align themselves to the right.

At the command *front*, turn the head to the front.

To form twos and fours at the same gait.

495. The troop marching in column by file, right in front, to form twos the captain commands:

1. *Form twos.* 2. MARCH.

(Fig. 119.) At the command *march*, the first file continues to march on, and halts when it has marched ten paces; the second file

Fig 119.

obliques to the left, and comes up abreast of the first; on arriving there, it halts and dresses to the right. All the other files continue to march straight forward, Nos. 2 and 4 executing their movement in the same manner, but in succession, and when Nos. 1 and 3, upon

which they should form, have nearly arrived at their proper distance, and are about to halt.

496. The troop marching in column by twos, right in front, to form fours the captain commands:

1. *Form fours.* 2. MARCH.

At the command *march,* the first two files continue to march on, and halt when they have gone ten paces: the two following files oblique to the left, and come up abreast of the first two; on arriving there, they halt, and dress to the right. All the other files continue to march straight forward, Nos. 2 and 4 of each rank executing their movement in the same manner, when Nos. 1 and 2, upon which they should form, have nearly arrived at their proper distance, and are about to halt.

497. When the column is at *a trot,* the leading file or files pass *to the walk,* at the command *march,* the others continue to march *at the trot,* until they have arrived abreast of those on which they should form: then they pass *to the walk.*

When the column is *at a gallop,* the leading file or files pass *to the trot* at the command *march;* the others continue *at the gallop,* until they have executed their formation, when they pass *to the trot.*

When twos or fours are formed *at the trot,* or *at the gallop,* the guide is announced as soon as the first files have doubled. In executing the same movements *at a walk,* as the head of column halts, the guide is not announced.

In a column marching left in front, these movements are executed by inverse means.

To break by twos and by file at the same gait.

498. The troop marching in column by fours, right in front, to break by twos the captain commands:

1. *By twos.* 2. MARCH. 3. *Guide left.*

(Fig. 120.) At the command *by twos,* all the troopers prepare to halt, except Nos. 1 and 2 of the leading files. At the command *march,* Nos. 1 and 2 of the leading files continue to march at the

same gait; all the others halt. Files Nos. 3 and 4 of the leading rank oblique to the right at the moment they are passed by the croup of the horses of the rear rank of Nos. 1 and 2, and place themselves in column behind them.

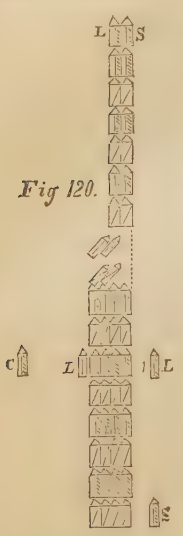


Fig 120.

Each rank of four executes the same movement in regular succession, files Nos. 1 and 2 breaking as soon as files Nos. 3 and 4 of the rank which precedes them have commenced obliquing, in order to enter the column.

Files Nos. 1 and 2, which break to the front, regulate their gait so as to preserve their distances; and files Nos. 3 and 4 keep their horses straight, so as not to constrain the movements of files Nos. 1 and 2.

499. The troop marching in column by twos, right in front, to break by file, the captain commands:

1. *By file.* 2. MARCH.

At the command *by file*, all the troopers prepare to halt except the right file of the leading rank of twos. At the command *march*, the right file of the leading rank of twos continues to march at the same gait; all the others halt. The left file of this same rank obliques to the right the moment it is passed by the croup of the rear rank horse of No. 1, and places himself in column behind the first file. The guide of the right, takes his place in rear of the chief of the first platoon.

Each rank of twos executes the same movement in succession, files Nos. 1 and 2, breaking as soon as files Nos. 2 and 4, who precede them, have commenced obliquing in order to enter the column.

Files 1 and 3, which break to the front, regulate their gait so as to have their distances. Files 2 and 4, keep their horses strait, so as not to constrain the movements of files 1 and 3.

When the column is *at a trot*, the right files of the leading rank continue at that gait, all the others take *the walk* at the com-

mand *march*, and resume *the trot* on entering the column. When the column is at *the gallop*, the files which are to break take *the trot* at the command *march*, and resume *the gallop* on entering the column.

The column marching left in front, the movement is executed by inverse means at the command: 1. *By twos* (or *by file*) *from the left*, *march*. If the column marches by twos, the guide is indicated to the right, immediately after the command *march*.

To form twos and fours in doubling the gait.

500. The troop marching by file right in front, to form twos, the captain commands:

1. *Form twos — trot.* 2. MARCH. 3. *Guide left.*

At the command *form twos—trot*, all the troopers prepare to *trot*, except the leading file, and take it at the command *march*. The second file obliques to the left, and comes up abreast of the first, and on arriving there takes *the walk;* all the other files continue to move at *the trot*. Files 4 and 2 execute the movement in the same manner, when 3 and 1, upon whom they are to form, have nearly arrived at their distance, and are about to pass to *the walk*.

501. The troop marching in column of twos, right in front, to form fours, the captain commands:

1. *Form fours — trot.* 2. MARCH. 3. *Guide left.*

At the command *form fours — trot*, all the troopers, except the two leading files, prepare to take *the trot*, and take it at the command *march*. The two files following the first two, oblique to the left, and come up abreast of these two, resuming the walk as they do so; all the other files continue to march forward at *the trot*. Files 1 and 2 of the next file of fours close up upon the leading file, and pass *to the walk*, when Nos. 2 and 4 of the same file oblique to the left, and come up abreast of them, taking *the walk;* and so do all the remaining files in succession.

When the column is *at the trot*, the movement is executed on the same principles. At the command *march*, all the troopers, except

the files at the head of the column, pass to *the gallop*, and resume the trot when the formation is executed.

The column marching left in front, the movement is executed by inverse means.

To break by twos and by file in doubling the gait.

502. The troop marching in column by fours, the captain commands:

1. *By twos — trot.* 2. MARCH. 3. GUIDE LEFT.

At the command *by twos — trot*, files 1 and 2 of the leading rank of fours prepare *to trot*. At the command *march*, they commence *the trot;* all the other files continue to march *at the walk;* files 3 and 4 take *the trot* in succession and oblique to the right, in order to place themselves in column behind files 1 and 2.

The movement being terminated the captain orders *the walk*.

503. The troop marching in column of twos, right in front, to break by file the captain commands:

1. *By file — trot.* 2. MARCH.

At the command *by file — trot*, the right file of the leading rank of twos prepares *to trot*. At the command *march*, it commences *the trot*, all the other files continue *at the walk;* files 2 and 4 assume the trot in succession and oblique to the right, in order to place themselves behind files 1 and 3 in the column.

When the column is *at the trot*, to break in doubling the gait, the captain commands: 1. *By twos* (or *by file*)—*gallop*. 2. MARCH.

504. The column marching left in front, the movement is executed by inverse means, at the commands: 1. *By twos* (or *by file*) *from the left*. 2. MARCH. If the column is to march by twos, the guide is indicated to the right, immediately after the command *march*.

SABRE EXERCISE.

505. The captain causes the sabre exercise to be executed at a halt; for this purpose he opens the ranks, and commands:

1. *By the left* (or *right*) *open files.* 2. MARCH. 3. *Right* (or *left*) — DRESS. 4. FRONT.

At the command *march*, the right trooper of each rank moves forward six paces; the one on the left of each rank turns *to the left*, and moves forward; he is followed by all the other troopers of his rank, who execute the same movement as soon as they have the necessary space to put themselves in file at their proper distances. The second trooper from the right of each rank, after having marched three paces, turns and dresses to the right; each of the other troopers look occasionally to the rear, and perform the same movement in succession when at three paces from the one who follows him, and dresses upon those already formed; the troopers of the rear rank place themselves exactly behind their file-leaders.

After the command *march*, the captain moves to the right of the front rank, and when the second trooper from the right has turned to the front, he commands, *right — dress.* After having rectified the alignment and the distances in the two ranks, he commands, *front.*

506. When the captain wishes to re-form the troop, he commands:

1. *To the right* (or *left*) — *close files.* 2. MARCH.

At the command *march*, the right trooper of each rank moves forward six paces; all the other troopers execute a turn to the right, and move forward.

Each trooper, on arriving within two paces of the place he is to occupy in line, turns to the left, and places himself on the left of the troopers already formed, and dresses to the right. The captain closes the ranks as soon as they are formed.

Direct march of the troop in line.

507. The most important point in the *direct march* being to keep the horses straight in the ranks, it is indispensable that the trooper should preserve the head direct.

To keep themselves aligned, the troopers should feel lightly the boot of the man on the side of the guide, and march at an equal

gait. They should yield to all pressure coming from the side of the guide, and resist that coming from the opposite side.

The guide should always march at a free and steady gait, and change it with steadiness in order to avoid irregularity in the ranks. If the troopers are in front or in rear of the alignment, too near or too far from the man on the side of the guide, they move from or approach him gradually. When the guide feels himself thrown out of his direction, he extends his arm to the front to indicate that there is too much pressure towards him. When the troopers carry the hand towards the opposite side, give a glance to the guide, and straighten their horses as soon as the guide is relieved.

The guide should be alternately to the right and to the left, that the troopers may acquire the habit of dressing equally well towards either direction.

508. To march the troop forward, the captain commands:

1. *Troop forward.* 2. *Guide right* (or *left*). 3. MARCH.

At the command *march*, all the troopers move straight forward, at the same gait with the men on the side of the guide.

The troopers march straight forward, feeling the boot lightly on the side towards the guide.

To halt the troop, the captain commands:

1. *Troop.* 2. HALT. 3. *Right* (or *left*) — DRESS. 4. FRONT.

At the command *halt*, the troopers stop.

At the command *right — dress*, they align themselves, and at the command *front*, turn the head to the front.

After the troop has been exercised sufficiently in the direct march, *at the walk*, it will be practised *at the trot*, and afterwards *at the gallop;* when marching *at a gallop*, the troop should habitually pass to *the trot*, and *the walk*, before being halted; but when the troopers are masters of their horses, it may be halted from *the gallop*.

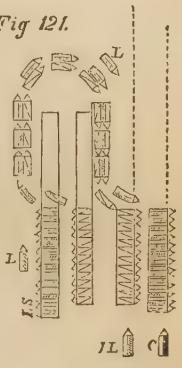
Countermarch.

509. The troop having arrived at the extremity of the ground, in order to change the direction, the captain commands:

1. *Countermarch — by the right flank.* 2. *By file to the right.* 3. MARCH.

(Fig. 121.) At the command *countermarch by the right flank*, the chiefs of platoon turn *to the right*, the chief of the first platoon placing himself in front of his first file; the file-closers turn *to the left*, and pass to the left of the troop, placing themselves abreast of the rear rank.

Fig 121.



The guide of the right places himself promptly behind the guide of the left, facing to the rear, the croup of his horse at six paces from the rear rank.

At the command *march*, the trooper on the right of each rank turns to the right, the rear rank man joining the front rank man; they then wheel together to the right, the latter lengthening his gait a little; they pass very near the croup of the horses of the rear rank, and are followed by the other troopers, who execute the same movement in succession, taking care to pass over the same ground.

When the first file is two paces from the right guide, who indicates the place where it is to form, the captain commands:

1. FRONT. 2. HALT. 3. *Right* — DRESS. 4. FRONT.

The file-closers follow the movement, and resume their places as they arrive at them.

After having commanded *march*, the captain moves rapidly to the flank by which the movement is executed, in order to direct the head of the column, and to re-form the troop to the rear upon a line parallel to the one it at first occupied.

The troop being aligned, the captain commands, *front*. At this command, the chiefs of platoon face to the front, by a turn to the left.

The countermarch should generally be executed *at the trot*. For this purpose, after the second command, the captain indicates the gait.

This movement is executed by the left flank by inverse means.

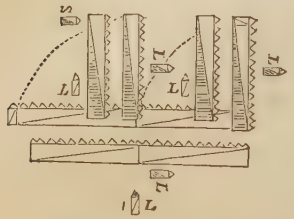
The troop being in line, to form it in column with distance.

510. The captain commands:

1. *Platoons right wheel.* 2. MARCH. 3. HALT.

(Fig. 122.) At the first command, the left file of each platoon prepares to step off promptly, and the pivot to turn upon its own ground.

Fig 122.



At the command *march*, each platoon executes its wheel to the right, following the principles of the wheel on a fixed pivot, the marching flanks taking care to step off and wheel together.

At the command *halt*, the marching flanks and all the troopers halt at the same instant, those of the rear rank resuming their places behind their file-leaders.

The captain commands *halt*, when the platoons have nearly completed the wheels.

The chiefs of platoon, without leaving their platoons, observe that the movement is correctly executed.

During the movement, the guide of the left passes as file-closer behind the second file from the left of the second platoon.

To march in column with distance.

511. In this order of column, the guides should preserve between them a distance equal to the front of their platoons, and regulate their gait upon that of the preceding guide.

The chiefs of platoon are responsible for the preservation of the distance, which should be half of the front of the platoon, assuming it to contain twelve files, measured from the croup of the horses of the rear rank of the leading platoon, to the head of the horses of the front rank of the rear platoon.

The troop being in open column, right in front, the captain commands:

1. *Column forward.* 2. MARCH. 3. *Guide left.*

At the command *march,* both platoons put themselves in motion at the same time.

Before the column commences the march, the captain gives the guide of the first platoon a point of direction.

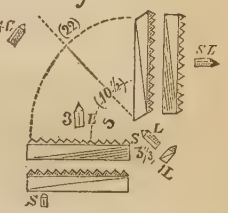
Changes of direction.

512 In the open column, the changes of direction are executed by successive wheels *on a movable pivot,* so that the march of the column may not be retarded. The arc of the circle described by the pivots should be *five paces.*

The column being in march, to change the direction, the captain commands:

Head of column to the left or *half-left* (or *to the right* or *half-right*).

Fig 123.



(Fig. 123.) At this command, the chief of the first platoon commands: 1. *Left*— TURN; 2. FORWARD; which is executed on the principles of the wheel upon a movable pivot.

The chief of the second platoon gives the same commands in time for his platoon to turn upon the same ground.

In this change of direction while marching, the guide of the right, at the command *head of column to the left,* moves rapidly to the side of the pivot, and places himself so that the head of his horse will mark the centre point of the arc described by the pivot.

Both platoons commence their wheel at two and a half paces before arriving abreast of the head of the horse of the guide of the right, so as to prevent the column from being thrown out. The guide resumes his place when the second platoon has completed its wheel.

Individual oblique march.

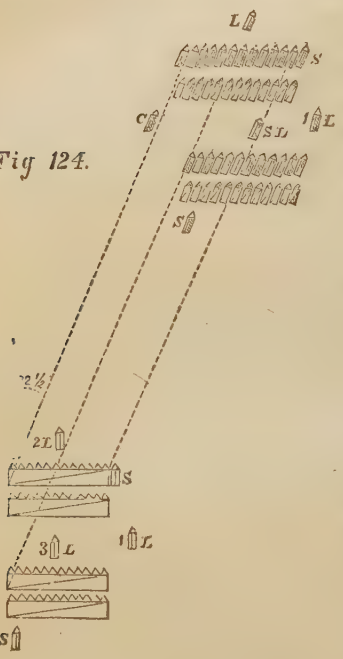
513. The troop marching in column, with distance, right in front,

to cause it to gain ground towards one of the flanks, without changing the front of the columns, the captain commands:

1. *Left* (or *right*) *oblique.* 2. MARCH.

(Fig. 124.) At the command *march,* the troopers all execute, at the same time, *a quarter turn to the right,* so that the head of each horse may be opposite the extremity of the neck of the horse on his right, and that the right knee of each trooper may be in rear of the left knee of the trooper on his right. This first movement being executed, the troopers move forward in the new direction, regulating themselves upon the guide.

Fig 124.



The guide of the second platoon pays attention to march on the same line, to preserve his distance, and to keep in a direction exactly parallel to that of the guide of the first platoon.

To resume the primitive direction, the captain commands:

FORWARD.

At this command the troopers straiten their horses, and move forward, regulating themselves upon the guide.

In the oblique march, the guide is always on the obliquing side, without being indicated; and after the command *forward,* the guide returns, without indication, to the side on which it was before the oblique.

To break by fours, by twos, and by file; to form twos, fours, and platoons at the same gait.

514. The troop marching in column with distance, right in front, to break by fours at the same gait, the captain commands:

1. *By fours.* 2. MARCH. 3. *Guide left.*

At the command *by fours*, repeated by the chief of the first platoon, this officer places himself in front of the first four files on the right; the right guide places himself on his right.

At the command *march*, which is also repeated by the chief of the platoon, this platoon breaks by fours as prescribed No. 485, and the chief of the second platoon commands *halt.*

The chief of the second platoon commands *by fours*, in sufficient time to command *march*, the moment the last four files of the first platoon commence the oblique movement in order to enter the column.

515. The troop marching in column by fours, right in front, to break by twos, at the same gait, the captain commands:

1. *By twos.* 2. MARCH. 3. *Guide left.*

The chiefs of platoon conform to what is prescribed in order to break by fours, and give the commands, *halt;* and then, 1. *By twos.* 2. MARCH; so as to cause no confusion in the column.

516. The troop marching in column by twos, right in front, to break by file at the same gait, the captain commands:

1. *By file.* 2. MARCH.

Which is executed as prescribed for breaking by twos, the guide of the right placing himself behind the chief of the first platoon.

517. The troop, marching in column with distance, at *the trot*, right in front, to break by fours, at the same gait, the captain commands.

1. *By fours.* 2. MARCH. 3. *Guide left.*

At the first command, repeated by the chief of the first platoon,

this officer and the guide of the right, place themselves as prescribed No. 514, and the chief of the second platoon commands, *walk.*

At the command *march,* repeated by both the chiefs of platoon, the first platoon breaks by fours, as prescribed No. 514, and the second platoon takes *the walk.*

The chief of the second platoon commands, *by fours — trot,* in sufficient time to command *march,* when the last four files of the first platoon commence the oblique movement in order to enter the column.

The same principles are applicable to breaking by twos, and by file.

When the column is *at the gallop,* these movements are executed on the principles just prescribed, the whole column except the first four files, passing to *the trot,* and resuming *the gallop,* as the files break in order to enter the column.

518. The troop marching in column by file, right in front, to form twos at the same gait, the captain commands:

1. *Form twos.* 2. MARCH.

At the commands *form twos,* and *march,* repeated by the chief of the first platoon, this platoon executes the movement as prescribed No. 500; the guide of the right moves to the right of the chief of the first platoon, who commands, *halt,* after having marched ten paces. The other platoon continues to march by file, and executes the movement at the command of its chief, who does not command *march* until the first files of his platoon has arrived at its proper distance.

519. The troop marching in column by twos, right in front, to form fours, at the same gait, the captain commands:

1. *Form fours.* 2. MARCH.

Which is executed as is prescribed for forming twos.

520. The troop marching in column of fours, right in front, to form platoons at the same gait, the captain commands:

1. *Form platoons.* 2. MARCH.

At the first command, the chief of the first platoon commands, *form platoon.*

At the command *march,* repeated by the chief of the first platoon, the guide of the right places himself on the right of this platoon, which forms as in *front into line,* No. 488; the chief of the platoon commands *halt,* after having marched twenty paces.

The other platoon continues to march in column by fours, and forms at the command: 1. *Form platoon* — MARCH; given by its chief in sufficient time to command *halt,* when the first four files of the platoon arrives at six paces from the platoon which precedes.

521. When the column is at *the trot,* the same principles are conformed to, except that instead of halting, the first two or four files of the first platoon pass to *the walk,* at the command *march* given by their chief. The second platoon continues to march at *the trot,* and execute the movement at the same gait, the first two or four files of the platoon passing also to *the walk,* at the command *march,* given by the chief of the platoon when they arrive at their proper distances.

When the column is at *the gallop,* to form twos, fours, etc., the same principles are observed, the first two or four files of each platoon passing to *the trot* at the command *march,* given by their chief.

When these formations are executed at *the trot,* and at *the gallop,* the guide is announced by the captain as soon as the first files have doubled, or the first platoon is formed; in the last case only, each chief of platoon repeats the command of the guide as soon as his platoon is formed.

To break by fours, by twos, and by file; to form twos, fours, and platoons, in doubling the gait.

522. The trooper marching in column with distance, right in front, to break by fours, in doubling the gait, the captain commands:

1. *By fours—trot.* 2. MARCH. 3. *Guide left.*

At the first command, repeated by the chief of the first platoon,

this officer, and the guide of the right, place themselves as prescribed, No. 514.

At the command *march*, repeated by the chief of the first platoon, this platoon breaks by fours, as prescribed, No. 514.

The other platoon continues to march at *the walk;* its chief commands, *by fours—trot*, in sufficient time to command *march*, the moment the last four files of the first platoon commence the oblique movement in order to enter the column.

These principles are applicable to breaking by twos and by file.

When the column is at *the trot*, to break at *the gallop*, the same principles are observed at the commands:

1. *By fours—gallop.* 2. MARCH. 3. *Guide left.*

523. The troop marching in column by files, to form twos in doubling the gait, the captain commands:

1. *Form twos—trot.* 2. MARCH. 3. *Guide left.*

At the commands *form twos—trot*, and *march*, repeated by the chief of the first platoon, this platoon executes its movement as prescribed, No. 500, and the guide of the right moves to the right of the chief of the first platoon.

At the first command, the chief of the second platoon commands, *trot.* At the command march, repeated by him, the second platoon takes *the trot.* He commands, *form twos*, in sufficient time to command *march*, the moment the first file of the platoon is nearly at its proper distance; the first file then passes to *the walk.*

524. The troop marching in column of twos, to form fours, in doubling the gait, the captain commands:

1. *Form fours—trot.* 2. MARCH. 3. *Guide left.*

Which is executed as prescribed for forming twos.

525. The troop marching in column by fours, to form platoon, in doubling the gait, the captain commands:

1. *Form platoons—trot.* 2. MARCH. 3. *Guide left.*

At the first command, the chief of the first platoon commands, *form platoon — trot.*

The chief of the second platoon commands *trot.*

At the command *march,* repeated by these officers, the first platoon forms as prescribed, No. 520, and the guide of the right places himself on the right of this platoon. The second platoon takes *the trot.* The chief of this platoon gives the command, *form twos,* in sufficient time to command *march,* the moment the first file of his platoon is nearly at its proper distance; the first file then passes to *the walk.*

526. The troop marching in column by twos to form fours, in doubling the gait, the captain commands:

1. *Form fours — trot.* 2. MARCH. 3. *Guide left.*

Which is executed as prescribed for forming twos.

527. The troop marching in column by fours, to form platoons, in doubling the gait, the captain commands:

1. *Form platoons — trot.* 2. MARCH. 3. *Guide left.*

At the first command, the chief of the first platoon commands, *form platoon — trot.*

The chief of the second platoon commands *trot.* At the command *march,* repeated by these officers, the first platoon forms as prescribed, No. 520, and the guide of the right places himself on the right of this platoon.

The second platoon takes *the trot,* and forms at the command *form platoon,* given by its chief in sufficient time to command *march,* when the first four files arrive at their proper distance from the first platoon; then these four files take *the walk.*

The captain commands *guide left* when the first platoon is formed, and gives a point of direction.

The chief of the second platoon commands the guide as soon as his platoon is formed.

When the column is at *the trot,* these formations are executed at *the gallop,* following the same principles, at the commands: 1. *Form twos,* or *form fours,* or *form platoons — gallop.* 2. MARCH.

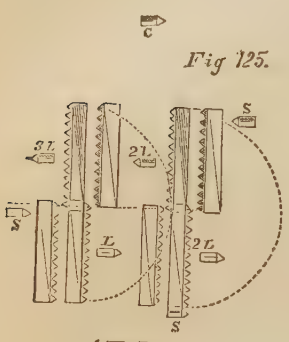
The troop marching in column with distance, to face it in the opposite direction, and to face it to the front again.

528. The troop marching in open column, right in front, the captain commands:

1. *Platoons left — about wheel.* 2. MARCH.

(Fig. 125.) At the first command, the trooper on the left of each platoon, who becomes the pivot, prepares to halt without, however, slackening his pace.

Fig 125.



At the command *march*, the pivots halt, and the marching flanks wheel at the gait in which the column was marching, regulating themselves upon the outer flank of the platoon at the head of the column, so as to complete the first half of the movement at the same instant.

The movement being nearly finished, the captain commands:

1. *Forward.* 2. *Guide right.*

During this movement, the guide of the left places himself on the left of the second platoon; the guide of the right takes his place as file-closer in rear of the second file from the right of the first platoon, and the other file-closers pass to the side opposite the guide.

To cause the troop to resume its primitive direction, the captain commands: 1. *Platoons right — about wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

529 The colnmn being on the march, to halt it, the captain commands:

1. *Column.* 2. HALT.

At the first command, both platoons prepare to halt, and at the command *halt*, halt at the same time.

To form line to the left.

530. The troop being in column with distance, right in front, to form it in line on its left flank, the captain commands:

1. *Left into line, wheel.* 2. MARCH. 3. HALT. 4. *Right*—DRESS. 5. FRONT.

At the first command, the guide of the right moves upon the prolongation of the guides of the column, at the distance of the front of a platoon, facing the side towards which the line will be formed.

At the command *march*, the troop wheels into line, the trooper on the left wing of each platoon serving as pivot, and turning upon his own ground.

The captain commands *halt* the moment the marching flanks have nearly completed their movement, and then *right dress.*

At this command, both platoons align themselves.

The troop being aligned, the captain commands *front.*

During the wheel, the guide of the left resumes his place in line.

531. The formation of the troop into a column with distance, left in front; the march of this column; the changes of direction in a column; left in front; etc. etc., are executed upon the same principles as a column right in front, but by inverse means.

To form line to the right by inversion.

532. The troop marching in open column, right in front, to form it in line upon its right flank by inversion, the captain changes the guide; for this purpose, he commands:

Guide right.

The captain passes by the head of the column to the side of the new guides, rectifies their direction, then halts the column, and commands:

1. *By inversion right into line wheel.* 2. MARCH. 3. HALT. 4. *Left*—DRESS. 5. FRONT.

Which is executed as prescribed for wheeling into line to the left, but by inverse means.

To put the troop in column again, right in front, the captain commands: 1. *Platoons left wheel.* 2. MARCH. 3. HALT (or FORWARDS. 4. *Guide left.*

To form on right into line.

533. The troop marching in column with distance, right in front, to form it in line on the prolongation and in advance of its right flank, the captain commands:

1. *On right into line.* 2. MARCH. 3. *Guide*—RIGHT. 4. FRONT.

(Fig. 126.) At the first command the chief of the first platoon commands *right,* and at the command *march,* he commands *turn:*

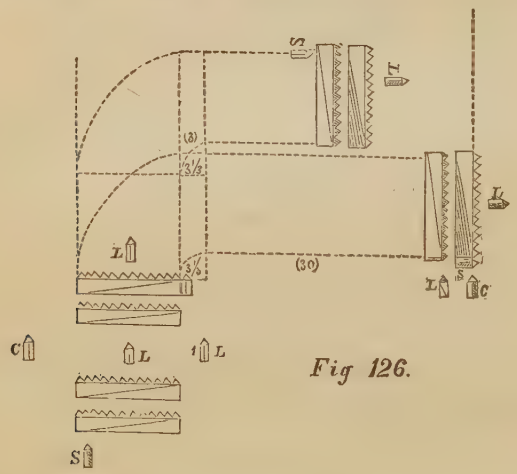


Fig 126.

the platoon turns to the right and moves forward at the command *forward;* when it has marched thirty paces, its chief commands *halt,* and then *right—dress.*

The second platoon continues to march forward, without approaching the line; as soon as it arrives abreast of the fourth file from the left of the first platoon, its chief commands: 1. *Right*—TURN. 2. FORWARD. The platoon then directs itself towards the place it is to occupy in line, and on arriving abreast of the file-closers, its chief commands *halt*, and then *left*—*dress.*

When the troop is aligned, the captain commands, *front.*

To form on left into line by inversion.

534. The troop marching in column with distance, right in front, to form it in line upon the prolongation and in advance of its left flank, the captain commands:

1. *By inversion on left into line.* 2. MARCH. 3. *Guide left.* 4. FRONT.

At the first command, the chief of the first platoon commands, *left.*

At the command *march*, he commands, *turn;* the platoon turns to the left, and moves forward at the command *forward;* when it has marched thirty paces its chief commands *halt*, and then *left*—*dress.*

The second platoon continues to march forward, without approaching the line; when it arrives abreast of the fourth file from the right of the first platoon, its chief commands: 1. *Left*—TURN; 2. FORWARD; this platoon directs itself towards the place it is to occupy in line, and on arriving abreast of the file-closers, its chief commands *halt*, and then *left*—*dress.*

To form front into line.

535. The troop being in column with distance, right in front, to form it in line upon the head of the column, the captain commands:

1. *Front into line.* 2. MARCH. 3. *Guide right.* 4. FRONT.

(Fig. 127.) At the first command, the chief of the first platoon commands, *platoon forward*, and the chief of the second commands *platoon left half wheel.*

At the command *march*, repeated by these officers, the first platoon moves forward; its chief repeats the indication of the guide,

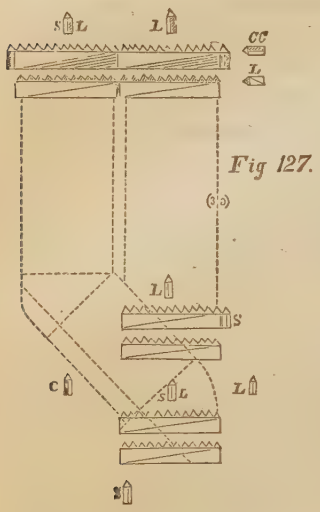


Fig 127.

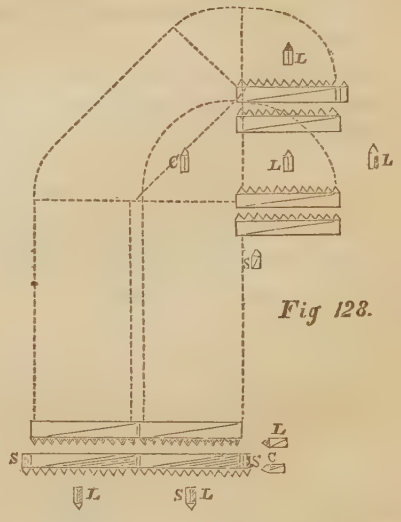


Fig 128.

and when it has marched thirty paces, he commands: 1. HALT. 2. *Right* — DRESS.

The chief of the second platoon, when the *left half wheel* is executed, commands: 1. FORWARD. 2. *Guide right;* and marches straight forward. When the right of his platoon arrives opposite the left of the first platoon, he commands: 1. *Right half wheel.* 2. FORWARD: and when he arrives abreast of the file-closer: 1. HALT 2. *Right* — DRESS.

The troop being aligned, the captain commands, *front.*

To form line faced to the rear, on the rear of the column.

536. The troop being in column with distance, right in front, to form line faced to the rear, the captain commands:

1. *Platoons left about wheel.* 2. MARCH. 3. *Front into line.* 4. MARCH. 5. *Guide left.* 6. FRONT.

(Fig. 128.) At the second command, each platoon executes its wheel *to the left about.*

At the fourth command, the chief of the second platoon, now in front, when its wheel is nearly completed, commands *forward, guide left;* and when it has marched thirty paces: 1. HALT. 2. *Left*— DRESS.

The chief of the second platoon, on completing three-fourths of his wheel, commands: 1. FORWARD. 2. *Guide left,* and directs it towards the place it is to occupy in line, conforming in other respects to what is prescribed for *front into line,* when the column is *left in front.*

To form line faced to the rear on the head of the column.

537. The troop being in column with distance, right in front, to form line faced to the rear upon the head of the column, the captain commands:

1. *By inversion front into line.* 2. MARCH. 3. *Guide left.*

(Fig. 129). At the first command, the chief of the first platoon commands, *platoon forward;* and the chief of the second, *platoon right half-wheel.*

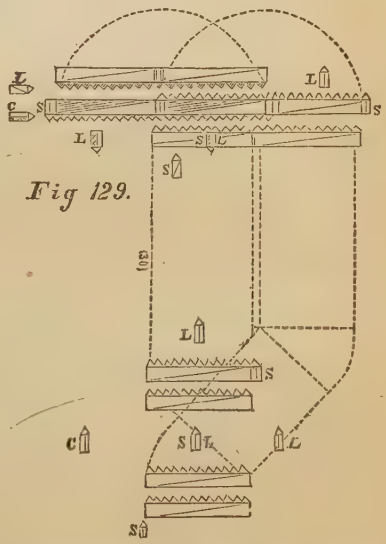


Fig 129.

At the command *march,* repeated by these officers, the movement is executed as prescribed for front into line, but by inverse means.

The captain without rectifying the alignment, commands:

1. *Platoon left-about wheel.* 2. MARCH. 3. HALT. 4. *Right*— DRESS. 5. FRONT.

Movements by fours, the troop being in column with distance.

538. The troop being in column with distance, right in front, to

cause it to gain ground towards its left flank, the captain commands:

1. *By fours left wheel.* 2. MARCH. 3. FORWARD. 4. *Guide right.*

(Fig. 130.) At the command *march*, each rank of fours executes its wheel to the left, according to the principles of the wheel on a xed pivot; Nos. 4 turn upon themselves, sustaining with the left

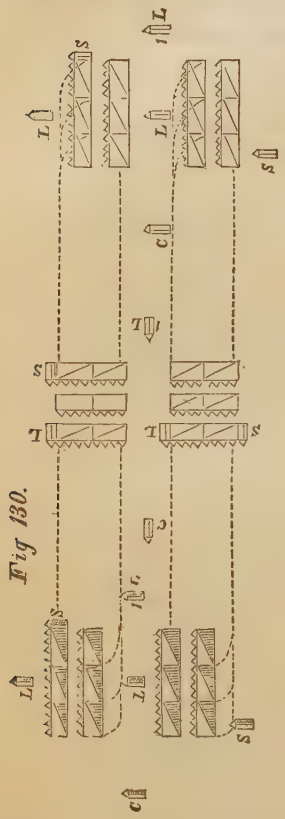


Fig 130.

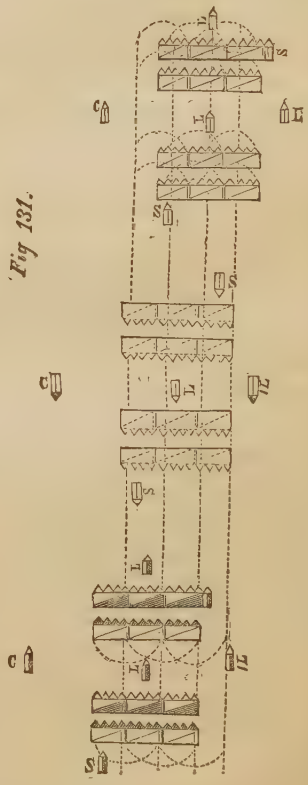


Fig 131.

leg the haunches of their horses, in order not to constrain the movement of the rank immediately behind them; all the troopers regulate themselves towards the marching flanks.

539. To take a direction parallel to the first, and return to column with distance, the captain commands:

1. *By fours right wheel.* 2. MARCH. 3. HALT.

Which is executed on the same principles, but by inverse means.

If instead of halting, the captain wishes the column to march forward, he commands: 1. FORWARD. 2. *Guide left.*

540. The troop being in column with distance, right in front, it is caused to gain ground towards its right flank by the commands: 1. *By fours right wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left;* and to resume the primitive direction at the commands: 1. *By fours left wheel.* 2. MARCH. 3. HALT (or FORWARD). 4. *Guide left.*

541. The troop being in column with distance, right in front, to cause it to march to the rear the captain commands:

1. *By fours left about wheel.* 2. MARCH. 3. FORWARD. 4. *Guide right.*

(Fig. 131.) At the command *march,* the movement is executed in each rank by fours, so as to throw the rear rank before the front rank, and the ranks of fours are inverted throughout the column.

If, instead of moving forward after *the wheel to the left about by fours,* the captain wishes to halt the column, he commands, *halt.*

To return to the primitive direction, the captain commands:

1. *By fours right about wheel.* 2. MARCH. 3. HALT.

Which is executed as just prescribed, but by inverse means.

If the captain wishes the column to march forward, he commands: 1. FORWARD. 2. *Guide left.*

542. In all the movements *to the left* and *to the right by fours,* the chiefs of platoon move up abreast of the first rank of their platoons, on the side of the guide.

The captain, the file-closers, and the guides of the right and left, preserve their places after *the wheel to the left* or *right by fours* is completed, facing in the new direction.

In *the wheel to the left* or *right about by fours,* the chiefs of pla-

toon march behind the centre of their platoons, and the file-closers in front. The guide of the right is on the left of his platoon, and the guide of the left in front of his.

WHEELINGS.

543. During the wheel, the chiefs of platoon keep at the centre of their platoons, and correctly aligned, keeping their horses upon the arc of a circle, more or less great, in proportion to their distance from the pivot. The files on the flanks of platoons close upon each other, all observing the progression of the marching flank, and keeping upon the arcs they should describe.

To wheel on a fixed pivot.

544. The troop is exercised in wheeling on a fixed pivot, first at *the walk*, then at *the trot;* also at *the gallop*.

The troop being halted and correctly aligned, the captain commands:

1. *Troop in circle to the right.* 2. MARCH.

Which is executed on the principles prescribed, Nos. 434 and 435

To halt the troop during the wheel, the captain commands:

1. *Troop.* 2. HALT. 3. *Left* — DRESS. 4. FRONT.

At the first command, the troopers of the rear rank straighten their horses, and resume their places behind their file-leaders.

At the second command, all the troopers halt.

At the third command, the troop dresses to the left.

The troop being aligned, the captain commands *front.*

If instead of halting, the captain wishes to resume the direct march, he commands:

1. *Forward.* 2. *Guide left.*

At the first command, the troopers of the rear rank straighten their horses, and place themselves behind their file-leaders, and the whole troop moves forward at the gait in which it was marching before the wheel.

545. The troop wheeling to the right, at *the walk*, or at *the trot*, the captain commands:

1. *Troop in circle left wheel.* 2. MARCH.

Which is executed as prescribed Nos. 434 and 435.

546. The troop being halted the captain commands:

1. *Troop.* { *right* (or *left wheel*). / *right about* (or *left-about*) *wheel.* / *right-half* (or *left-half*) *wheel.* } 2. MARCH.

3. *Troop.* 4. HALT. 5. *Left* (or *right*) — DRESS. 6. *Front.*

To exercise the troop while marching at the wheels on a fixed pivot, the captain commands:

1. *Troop.* { *right* (or *left*) *wheel.* / *right-about* (or *left about*) *wheel.* / *right half* (or *left half*) *wheel.* } 2. MARCH.

3. FORWARD. 4. *Guide left* (or *guide right.*)

To wheel on a movable pivot.

547. The troop marching in line, to change direction to the right, the captain commands:

1. *Right* — TURN. 2. FORWARD.

Which is executed as prescribed, No. 438, the pivot describing an *arc of a circle of fifteen paces.*

Movements by fours.

548. The troop being in line, to cause it to gain ground towards its right flank, the captain commands:

1. *By fours right-wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left*

Which is executed as prescribed, No. 540. The chiefs of platoon march on the side of the guide, at one pace from, and abreast of the leading files of their platoon.

The guide of the right marches in front of the column, at one pace from the leading rank of eight, the guide of the left behind the last rank of eight of the second platoon.

To put the troop in line again, the captain commands:

1. *By fours left wheel.* 2. MARCH. 3. HALT. 4. *Right* — DRESS. 5. FRONT.

Which is executed as prescribed, No. 540, the guides resuming their places in line.

The troop marching in line, to break it by platoons, to the right, and to form it again into line.

549. The troop marching in line, to cause it to gain ground towards its right flank, the captain commands:

1. *Platoons right wheel.* 2. MARCH. 3. FORWARD. 4. *Guide — Left.*

Which is executed as prescribed, No. 510, the pivots halting short, and the left file of each platoon stepping out promptly, so as to arrive together in column.

To put the troop in line again, the captain commands:

1. *Platoons left wheel.* 2. MARCH. 3. FORWARD. 4. *Guide — Right.*

The marching flanks regulate their movements so as to arrive together in line.

The troop marching in line to break it to the front by platoons, and to re-form it.

550. The captain commands:

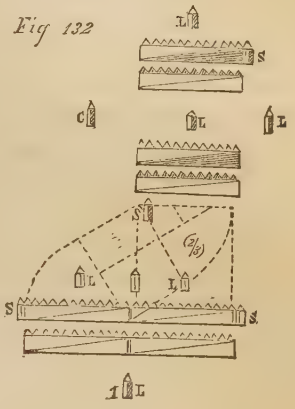
1. *By platoon to the front.* 2. MARCH. 3. *Guide left.*

(Fig. 132.) At the command *march*, the first platoon continues to march forward; its chief repeats the command *guide left.* At the first command, the chief of the second platoon commands: *platoon right half-wheel*, which is commenced at the command *march;* when it is executed, the chief of the platoon commands: 1. FORWARD. 2. *Guide left;* and marches it straight forward. When the left of his platoon arrives in the direction of the first

platoon, he commands, 1. *Left half wheel.* 2. MARCH. 3. FORWARD; in order to take his position in column.

The movement is executed in the same manner at *the trot*, and at *the gallop.*

Fig 132



551. The troop marching in column with distance, right in front, to form it at the same gait, the captain commands:

1. *Form troop.* 2. MARCH. 3. *Guide right.*

Which is executed in the same manner as *front* into line, No. 535, except that as the troop is on the march the chief of the first platoon does not command *platoon forward*, or *march*, but repeats the command for the guide.

The troop marching at *the trot*, this movement is executed on the same principles, except that the chief of the first platoon commands: 1. *Walk.* 2. MARCH; the guide of the right moving up on the line with the chiefs of platoon, and the chief of the second platoon commands; 1. *Walk.* 2. MARCH; on arriving in line. When the column is at the gallop, the platoons take *the trot* in succession.

The troop marching in line it is broken by the left by inverse means, at the commands: 1. *By the left — by platoons to the front.* 2. MARCH. 3. *Guide right.*

The same movement may be performed by doubling the gait, at the commands: 1. *By platoons to the front — trot.* 2. MARCH. 3. *Guide left.* At the first command, the chief of the first platoon commands, *trot;* the chief of the second commands, *platoon right half-wheel — trot.*

At the command march, the movement is executed as before.

The line may be re-formed at the commands: 1. *Form troop — trot.* 2. MARCH. 3. *Guide right.* At the first command, the chief of the second platoon commands, *platoon left half-wheel — trot.*

The first platoon continues to march at *a walk*, and its chief repeats the command for the guide. When the second platoon arrives in line, its chief commands: 1. *Walk.* 2. MARCH.

THE CHARGE.

552. The troop is exercised at the charge: 1. *In line.* 2. *In column.* 3. *As foragers.*

The charge in line, executed by the troop when in line; it should be as short as possible, so as arrive in good order, and without fatiguing the horses.

The charge in column is exercised by the troop when broken into column of platoons with distance.

To execute the *charge as foragers*, all the troopers of the troop disperse, and direct themselves each upon the point he wishes to attack, observing not to lose sight of their officers, who charge with them.

553. The troop being in line, the captain orders the sabres to be drawn, and the platoons to charge in succession.

For this purpose the captain advances 240 paces to the front, taking a trumpeter with him; and when he wishes the movement to commence, he causes a signal to be given.

The first platoon then moves forward at the commands: 1. *Platoon forward.* 2. *Guide right* (or *left*). 3. MARCH; by its chief. It passes in succession from *the walk* to *the trot*, from *the trot* to *the gallop*, and from *the gallop* to *the charge.*

When the platoon has moved some sixty paces at *the charge*, the chief of platoon commands: 1. *Attention.* 2. *Platoon.* 3. HALT. 4. *Right* — DRESS. 5. FRONT.

At the command *attention*, the troopers carry the sabre to the shoulder. At the command *platoon*, they take *the trot.* At the command *halt*, they stop. At the command *right — dress*, they align themselves to the right. At the command *front*, turn the head to the front.

The second platoon follows when the first has halted.

554. To execute *the charge* by the troop, the captain places himself in front of the centre of his troop, and commands:

1. *Troop forward.* 2. *Guide right* (or *left*). 3. MARCH.

When the troop has marched twenty paces, he commands:

1. *Trot.* 2. MARCH.

At sixty paces farther, he commands:

1. *Gallop.* 2. MARCH.

At eighty paces farther, he commands:

CHARGE.

At this command, repeated by the chiefs of platoons, the troopers of both ranks take the position of *raise — sabre.* They give hand and lengthen the gallop, without losing control of their horses or disuniting.

When the troop has passed over sixty paces to the charge, the captain commands:

1. *Attention.* 2. *Troop.* 3. HALT. 4. *Right* — DRESS. 5. FRONT.

At the command *attention*, repeated by the chiefs of platoon, the troopers prepare to slacken the pace, and carry the sabre to the shoulder.

At the command *troop*, the chiefs of platoon command *platoon*, and the troopers pass to *the trot.*

At the command *halt*, repeated by the chiefs of platoon, the troopers halt.

At the command *right—dress*, they align themselves to the right.

The troop being aligned, the captain commands *front.*

When the troop executes the charge correctly, instead of halting when the charge is finished, the captain commands:

1. *Attention.* 2. *Trot.* 3. MARCH.

555. At these commands, repeated by the chiefs of platoon, the troop passes to *the trot*, and he commands:

1. *First* (or *second*) *platoon — as foragers.* 2. MARCH.

At these commands, repeated by the chief of the platooon desig-

nated, the platoon moves forward at *the gallop*, and disperses as foragers. A trumpeter follows the chief of the platoon.

The other platoon follows at *a trot;* when it has passed over 150 paces, the captain causes the *rally* to be sounded. At this signal, repeated by the trumpeter of the platoon dispersed as foragers, the latter rally upon the other platoon by wheeling *to the left about*, and resuming their places in rank by the shortest line, the troopers entering the ranks by the rear. When three-fourths of the platoon have rallied and are in line, the captain commands:

1. *Attention.* 2. *Gallop.* 3. MARCH. 4. CHARGE.

The troop again executes the charge in line; the troopers who have not been able to rally, charge upon the flanks of the troop.

556. The troop marching in column with distance, at *the trot*, the captain commands:

1. *To the charge.* 2. MARCH.

At the first command, the chief of the first platoon commands *gallop.*

At the command *march*, repeated by the chief of the first platoon, this platoon commences *the gallop.*

The other platoon follows at a *trot*, taking the gallop, when the first platoon has gotten 50 paces in front of it.

When the first platoon has passed over 80 paces at *the gallop*, its chief commands *charge.* At this command the platoon executes the charge; and when it has passed over 60 paces, its chief causes it to pass to *the trot*, by the commands: 1. *Attention.* 2. *Trot.* 3. MARCH.

The other platoon pays attention to the movements of the first, so as to change the gait in time, and to resume the ordinary distance; the captain halts the column when he thinks proper. These charges are executed, each platoon in turn taking the head of the column.

557. The troop marching in column with distance, at *the trot*, the captain commands:

1. *First platoon as foragers.* 2. MARCH.

At the command *march*, repeated by the chief of the first platoon, this platoon disperses as foragers. The troop continues to march at *the trot*, and when it has passed over 100 or 150 paces, the captain causes the rally to be sounded.

-At this signal, the platoon rallies and re-forms in the rear of the second.

RALLYING.

558. To give the troopers the habit of rallying promptly, after having been dispersed as foragers, the captain places the troop at the extremity of the drill-ground; and after giving notice to the files on the flanks of platoons, the file-closers and the trumpeters, to remain upon the line with him, he causes the disperse to be sounded. At this signal, the troopers disperse and charge as foragers; when they are at the distance of 100 or 200 paces, the captain causes the *rally* to be sounded.

The captain causes the troopers to disperse without confusion, and in rallying, see that they direct themselves to the right and left of the troop, in order to unmask the front of the troop, and to re-form in passing to the rear.

When the troopers rally without confusion, this movement is repeated without requiring the flank files, etc., to remain on the line of the troop. At the signal, the troop disperses in every direction to the front.

When the troop is dispersed, the captain causes the *rally* to be sounded.

At this signal, the officers, the non-commissioned officers, and the troopers, rejoin rapidly; the officers align themselves promptly upon the captain, and the non-commissioned officers promptly mark the flanks of the platoons.

As soon as the captain has rallied two-thirds of the troop he moves forward, charges again, and halts.

These movements are first executed at *the trot*, and then at *the gallop*.

Light cavalry should be particularly exercised in *charging as foragers* and in *rallying*.

SKIRMISHING.

559. The troop being in line, the captain commands:

1. *First* (or *second*) *platoon — as skirmishers.* 2. MARCH.

At the first command, the chief of the first platoon orders the sabres to be returned, and the arms to be loaded; he then commands: 1. *Platoon forward.* 2. *Guide right.* 3. *Trot.*

At the command *march*, repeated by the chief of the platoon, this platoon moves forward at *the trot.* After marching 100 paces to the front, the chief of the platoon commands: 1. *Six files from right* (or *left*) *— as skirmishers.* 2. MARCH. 3. *Guide right* (or *left*).

At the first command, the senior file-closer places himself in front of the files of the left who are intended to support the skirmishers, and at the command *march*, cause them to *halt* and draw sabre.

At the command *march*, the six files of the right continue to move forward; after going ten paces they disperse as skirmishers, extending themselves so as to cover the exposed part of a troop in passing beyond each of its flanks. The right trooper obliques to the right, the left trooper to the left. The troopers of the rear rank come up as soon as possible, abreast of the front rank, each one placing himself on the left of the file-leaders, and as soon as they are in line, all take the position of *advance — carbine*, or *raise — pistol.* They continue to march until the signal to *halt.*

The chief of platoon causes the *halt* to be sounded when the skirmishers are at 100 or 150 paces from the reserve.

The troopers keep at five paces apart, regulating themselves towards the guide during the time they act as skirmishers.

The chief of platoon places himself in rear of the skirmishers, in order to superintend their movements.

When the captain wishes the skirmishers to re-enter the troop, he causes the *rally* to be sounded. At this signal, the chief of the platoon employed as skirmishers rallies his platoon, and then rejoins the troop at a *gallop.*

ARTICLE IX.

SCHOOL OF THE SQUADRON.

560. THE object of the *school of the squadron* is to instruct four platoons to execute together what has been taught to two, and to prepare the squadron to perform what it will be required to do when a part of the regiment.

To make the formations in line better understood, they are executed at first from a halt. Each movement, after having been correctly executed by the right, is repeated by the left.

The troopers are made to *mount* and *dismount* by the times, but without explanation.

The captain commanding requires the distance between the platoons to be preserved exactly in all the movements; he sees that the troopers are not constrained, and that the rear-rank men are not only in the direction of their file-leaders, but that there is always two feet between the head of their horses and the croup of those of the front rank.

The second captain is charged with the alignment of the rear rank, and the rank of file-closers; he resumes his place in line at the command *front.*

The captain commanding moves wherever his presence is most required; the troopers are required to observe *absolute silence,* and all rectifications are done by signs, or in a low voice.

A large majority of the movements are the same, and are executed by the same commands as those already laid down in the school of the troop; the only difference being that what is laid down as applicable to *two* platoons, must now be made to apply to *four.* All of the movements of the squadron are indicated in the

following number, those marked in italics not having been already described in the school of the troop, are described farther on; for all the other movements a simple reference to corresponding movements in the school of the troop will be sufficient to make them all perfectly intelligible.

For the manner of forming the squadron, and the posts of the officers, see No. 18.

MOVEMENTS OF THE SQUADRON.

561. *Successive alignment of platoons in the squadron.*

Alignment of the squadron.

To open and close ranks.

To break the squadron by fours.

Direct march in column by fours.

Change of direction.

Individual oblique march.

The squadron marching in column by fours, to form it to the front, to the left, or on right into line.

To regulate the rapidity of the gaits.

To form the squadron in one rank, and to form it in two ranks.

The squadron being in line, to form it in column with distance

To march in column with distance.

Changes of direction by successive wheels.

Individual oblique march.

Change of gait, being in column with distance.

To break by fours, by twos, and by file; to form twos, fours, and platoons, at the same gait.

The squadron marching in column with distance, to face it to the opposite direction, and to face it again to the front.

To halt the column.

To form line on the left.

To break by the right to march to the left.

To form line to the right by inversion.

To break to the rear by the right to march to the left.

To form on right into line.

To form on left into line, by inversion.

To break by platoons to the front.

To form front into line.

To break by platoons to the right, and to move forward after the wheel.

To form line to the front, by inversion.

To break by platoons to the right, head of column to the left or half left.

To form line faced to the rear, on the rear of the column.

To form line faced to the rear, by inversion, on the rear of the column.

To break by platoons to the right, head of column to the right or half right.

To form line faced to the rear on the head of the column.

To form line faced to the rear, by inversion, on the head of the column.

Movements by fours, the squadron being in column with distance.

Direct march of the squadron in line.

Countermarch.

Wheelings.

To wheel on a fixed pivot.

To wheel on a movable pivot.

Individual oblique march.

Oblique march by platoons.

Movements by fours.

The squadron being in line, to cause it to gain ground to the rear, and to face it again to the front.

The squadron marching in line to break by platoons to the right, and to form it again in line.

The squadron marching in line, to march it to the rear by wheeling the platoons about.

The squadron marching in line, to break it to the front by platoons, and to re-form it.

The squadron marching in line to break it to the front by platoons, in doubling the gait, and to re-form it.

Passage of obstacles.

Charge.
Rallying.
Skirmishing.
The column by divisions.

Successive alignment of platoons in the squadron.

562. The squadron being in line, the captain commanding places the two non-commissioned officers, principal guides of the right and left, upon a line parallel to the front of the squadron, at thirty paces from the front rank, and facing each other.

On receiving notice from the captain commanding, the chief of the first platoon commands: 1. *Platoon forward.* 2. *Guide right.* 3. MARCH. At the command *march,* the platoon moves forward; at one pace from the point which marks the new alignment, the chief of the platoon commands: 1. HALT. 2. *Right* — DRESS. At the command *halt,* the chief of the platoon, and guide of the right, establish themselves immediately, the latter bringing the head of his horse against the boot of the principal guide of the right.

The first platoon being correctly aligned, the first captain commands:

1. *By platoon* — *Right* — DRESS. 2. FRONT.

(Fig. 133.) At the first command, the chief of the second platoon commands: 1. *Platoon forward.* 2. *Guide right.* 3. MARCH. Having arrived abreast of the file-closers of the platoon which forms the base of the alignment, he commands: 1. HALT. 2. *Right* — DRESS; and at the same time moves forward on the line of the chief of that platoon. At the command *halt,* the platoon stops. At the command *right* — *dress,* all the troopers move forward together upon the alignment.

Each chief of platoon executes the same movement, commanding *march,* when the one who precedes him has commanded *halt.* The guide of the left, at the command *halt,* from the chief of the fourth platoon, brings up the head of his horse against the boot of the principal guide of the left. The squadron being aligned, the first captain commands, *front.*

This alignment being correctly executed, it is repeated, giving the new base of alignment a direction oblique to the front of the

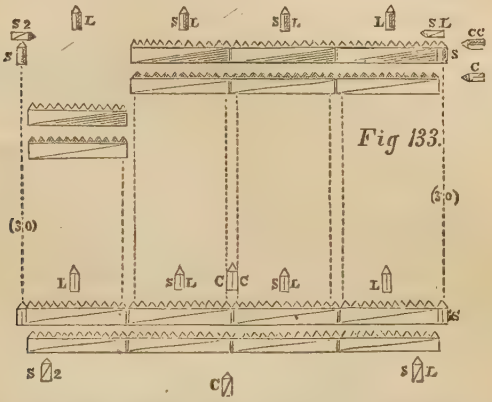


Fig 133.

squadron. For this purpose the chief of the first platoon, on receiving notice from the captain-commanding, moves his platoon 24 paces to the front, causes it to execute a half wheel to the right at the commands: 1. *Right half-wheel.* 2. FORWARD; and after marching at six paces in the new direction, he halts and aligns it. The first platoon being correctly aligned, the first captain commands:

1. *By platoon right* — DRESS. 2. FRONT.

(Fig. 134.) The movement is executed by the platoons in succession: each chief of platoon moves straight forward, and commands: 1. *Right-half*—WHEEL. 2. FORWARD; in time to complete the wheel at the moment the right arrives opposite the left of the platoon which precedes it. The squadron being aligned, the first captain commands, *front.*

To break by the right to march by the left.

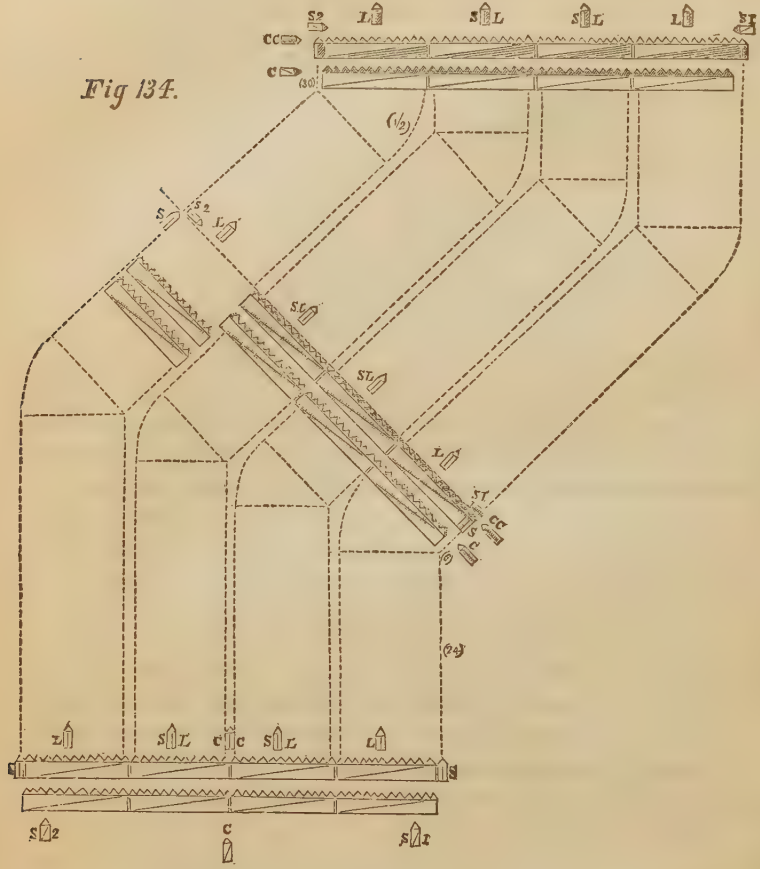
563. The squadron being in line, the first captain commands:

1. *Platoons break by the right — to march to the left.* 2. MARCH.

(Fig. 135.) At the first command, the chief of the first platoon

commands: 1. *Platoon forward.* 2. *Guide left.* At the command *march,* repeated by the chief of the first platoon, this platoon

Fig 134.

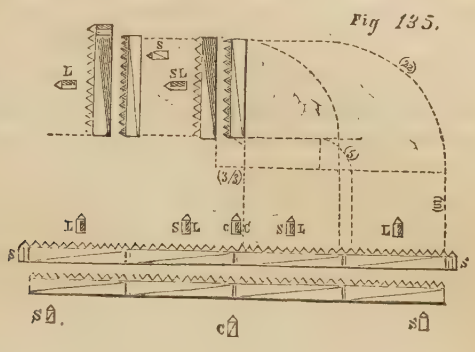


marches ten paces to the front, turns to the left, and moves forward at the commands: 1. *Left*—TURN. 2. FORWARD.

The chief of the second platoon, and successively those of the third and fourth, command: 1. *Platoon forward.* 2. *Guide left;*

when the chief of the platoon on the right commands *march;* and they command *march,* when the chief of that platoon, after having turned to the left, commands, *forward.*

Fig 135.



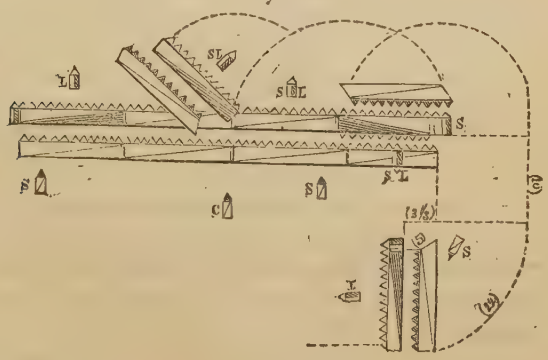
To break to the rear by the right to march to the left.

564. The squadron being in line, the first captain commands:

1. *Platoons break by the right to the rear — to march to the left*
2. MARCH.

(Fig. 136.) At the first command, the chief of the first platoon commands, *platoon right — about wheel.* At the command

Fig 136.



march, repeated by the chief of the first platoon, this platoon executes its wheel to the *right about;* when nearly terminated, its chief commands: 1. FORWARD. 2. *Guide left;* and after marching ten paces straight forward, he commands: 1. *Right* — TURN. 2. FORWARD. The chief of the second platoon, and those of the third and fourth in succession, commands, *platoon right — about wheel*, when the chief of the platoon on their right commands *march*, and they command *march*, when that platoon has passed over three-fourths of its first wheel.

To break by platoons to the right, and to move forward after the wheel.

565. The squadron being in line, the captain commanding commands:

1. *Platoon right wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

At the first command, the left file of each platoon prepares to step off promptly, and the pivot to turn upon itself. At the command *march*, each platoon executes its wheel to the right, following the principles of the wheel on a fixed pivot. At the third command, the platoons march straight forward.

To form line to the front by inversion.

566. The squadron being in open column, right in front, to form line by inversion upon the head of the column, the first captain commands:

1. *By inversion front into line.* 2. MARCH. 3. *Guide left.* 4. FRONT.

At the first command, the chief of the first platoon commands *platoon forward;* and then the other chiefs of platoons command *platoon right half-wheel.* At the command *march*, repeated by these officers, the movement is executed as prescribed, No. 535, but by inverse means.

This formation is executed in the same manner when the column

is marching; in this case the chief of the first platoon does not command *platoon forward,* nor *march,* but repeats the indication of the guide.

To break by platoons to the right, head of column to the left or half left.

567. The squadron being in line, the first captain commands:

1. *Platoons right wheel — head of column to the left* (or *half left*). 2. MARCH. 3. FORWARD. 4. *Guide left.*

At the command *march,* each platoon executes its wheel *to the right.* At the third command the chief of the first platoon commands: 1. *Left* — TURN. 2. FORWARD; the other platoons move on and turn in succession at the command of their chiefs, on the ground upon which the first had turned.

The first captain commands *forward,* when the wheels are nearly completed, and gives a point of direction.

To form line faced to the rear by inversion, on the rear of the column.

568. The squadron being in column with distance, right in front, and obstacles are presented on its left flank, to form line faced to the rear, the first captain commands:

1. *Platoons right about wheel.* 2. MARCH. 3. *By inversion front into line.* 4. MARCH. 5. *Guide right.* 6. FRONT.

At the second command, each platoon executes its wheel to the *right about.* At the fourth command, the chief of the fourth platoon, which becomes the head of the column, when its wheel is nearly completed, commands: 1. FORWARD. 2. *Guide right;* and when it has marched thirty paces, 1. HALT. 2. *Right* — DRESS. The chiefs of the other platoons, at three-fourths of the wheel, command: 1. FORWARD. 2. *Guide right;* and direct themselves towards the place they are to occupy in line, conforming, in other respects, to what is prescribed for *by inversion front into line,* when the left is in front.

To break by platoons to the right, head of column to the right (or *half right*).

569. The squadron being in line, the first captain commands:

1. *Platoons right wheel—head of column to the right* (or *half right*). 2. MARCH. 3. FORWARD. 4. *Guide left.*

At the command *march*, each platoon executes its wheel *to the right.* At the third command, the chief of the first platoon commands: 1. *Right*—TURN. 2. FORWARD. The other platoons move on, and turn in succession at the commands of their chiefs, on the same ground. The first captain commands *forward*, when the wheels are nearly completed.

To form line faced to the rear, by inversion on the head of the column.

570. The squadron being in column with distance, right in front, and obstacles are presented on its right flank, to form line upon the head of the column, faced to the rear, the first captain commands:

1. *Front into line.* 2. MARCH. 3. *Guide right.*

Which is executed as prescribed *for front into line, right in front.* No. 535, but without rectifying the alignment.

The squadron being formed, the first captain immediately commands:

1. *Platoons right — about wheel.* 2. MARCH. 3. HALT. 4. *Left* DRESS. 5. FRONT.

The movement is executed in the same manner, when the column is marching.

Individual oblique march.

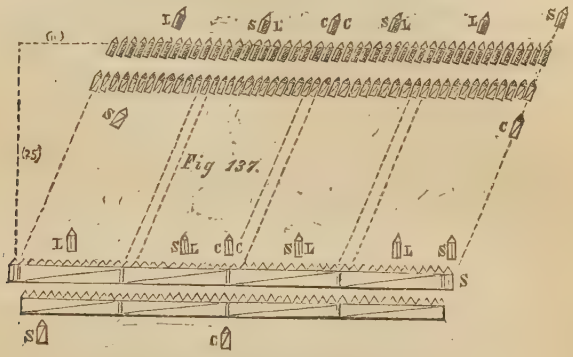
571. The squadron marching in line, to cause it to gain ground towards the right flank, without changing the front of the squadron, the first captain commands:

1. *Right oblique.* 2. MARCH.

(Fig. 137.) To resume the primitive direction, the first captain commands:

FORWARD.

This movement is executed at *a walk*, or at *a trot*, but never at *a gallop*.



Oblique march by platoons.

572. The squadron being in line, to cause it to gain ground towards its right flank, by the oblique march by platoons, the first captain commands:

1. *Platoons right — half wheel.* 2. MARCH. 3. FORWARD. 4. *Guide right.*

(Fig. 138.) At the command *march*, each platoon executes its *half wheel to the right*, on a fixed pivot. At the third command, each platoon moves forward, conforming to the principles of the direct march.

To cause the squadron to resume the primitive direction, the first captain commands:

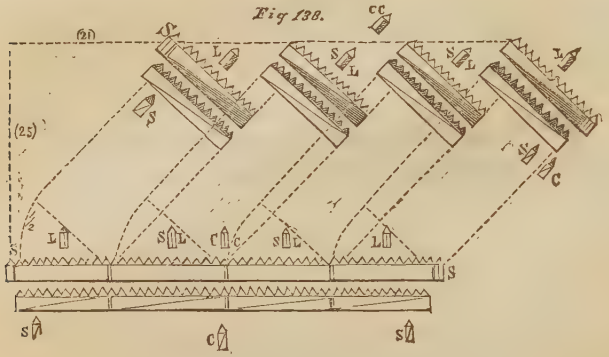
1. *Platoons left — half-wheel.* 2. MARCH. 3. FORWARD. 4. *Guide right.*

Which is executed as just prescribed, but by inverse means.

During this march, the right guide of the first platoon marches

directly upon the point which has been indicated to him The guides of the other platoons preserve their distances, take for file-

Fig 139.



leader the fourth trooper from the left of the platoon which precedes them, and keep it two paces from him. The second captain places himself behind the guide of the first platoon, in order to superintend his direction.

The squadron being in line, to cause it to gain ground to the rear, and to face it again to the front.

573. The squadron being in line, to face it in the opposite direction, the first captain commands:

1. *By fours right — about wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

(Fig. 139.) Which is executed as prescribed, No. 541. The chiefs of platoon, the file-closers, and the guides, *wheel — about* individually, and march, the chiefs of platoon behind the centre of their platoons, the file-closers in front, and the guides of the right and left of the rear rank, now become the front. At the fourth command, the file-closer nearest the guide passes to the left, in order to place himself in front of the guide, the first captain gives him a point of direction, which is also indicated to the guide of the

right or left, who, in this movement, remains on the flank of the squadron.

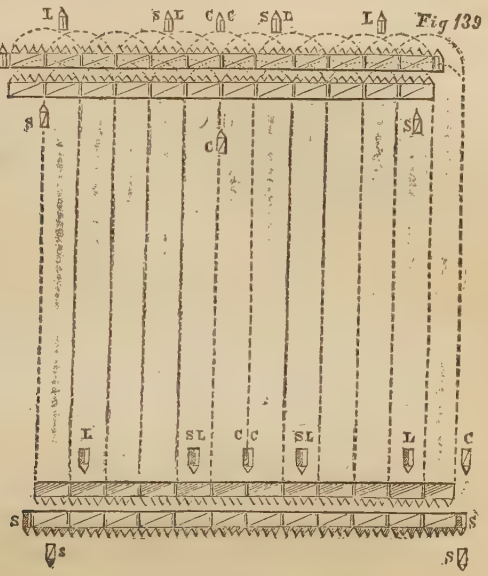


Fig 139

The squadron is *faced again to the front*, by a movement similar to the one just stated.

The squadron marching in line, to march it to the rear by wheeling the platoons about.

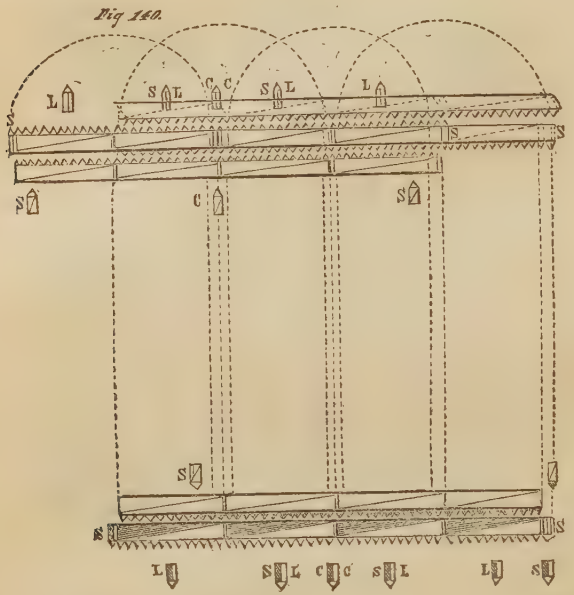
574. The squadron marching in line, guide right, the first captain commands:

1. *Platoons right about wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

(Fig. 140.) At the command *march*, the pivots halt short, and turn upon themselves, the marching flanks step off at the same instant, regulating themselves by the right during the first half of the wheel, so as to arrive together in column, and by the left during

the second half, so as to arrive together in line. In each platoon, the rear rank and the file-closers carry the hand towards the march-

Fig 160.



ing flank, in order to facilitate the movement. At the third command, the squadron resumes the direct march. At the fourth command, the indicated guide moves up on the line of the officers; he is immediately replaced, and a point of direction given.

In this movement, the guide of the right *turns to the right*, moves straight forward the extent of the front of a platoon, and *turns again to the right*, in order to place himself on the left of the squadron. The guide of the left executes the same movement, to place himself on the right of the right of the squadron.

The squadron marching in line, to break it to the front by platoon, in doubling the gait, and to re-form it.

575. The first captain commands:

1. *By platoons to the front — trot.* 2. MARCH. 3. *Guide left.*

At the first command, the chief of the first platoon commands *trot;* and those of the other platoons command, *platoon right half wheel — trot.* At the command *march,* repeated by these officers, the movement is executed as prescribed No. 550.

The squadron marching in line at *the trot,* the movement is executed at *the gallop,* on the same principles.

The squadron marching in column with distance, right in front, to form it in doubling the gait, the first captain commands:

1. *Form squadron — trot.* 2. MARCH. 3. *Guide right.*

At the first command, the chiefs of the three last platoons command, *platoon left half wheel — trot.* At the command *march,* repeated by the chiefs of the three last platoons, the first platoon continues to march straight forward at *the walk,* and its chief repeats the indication of the guide. The three other platoons execute their *half wheel to the left at the trot,* on a fixed pivot. The half wheels being nearly terminated, the chiefs of these platoons command: 1. FORWARD. 2. *Guide right;* they move straight forward, and as soon as the right file of their platoon is in the direction of the left file of the platoon which precedes, they command: 1. *Right half wheel.* 2. MARCH. 3. FORWARD; and then *walk,* in sufficient time to command *march,* when their platoon arrives in line; then the troopers resume *the walk,* and align themselves in marching. Each platoon after its *half wheel to the left,* moves straight forward on the point where it is to turn, and without obliquing towards the platoon which precedes it.

Passage of obstacles.

576. The squadron marching in line, to execute the passage of obstacle, the first captain commands:

1. *Obstacle.* 2. *First platoon.* 3. HALT.

(Fig. 141.) At the command *halt,* repeated by the chief of the first platoon, this platoon halts, and its chief immediately com-

mands: 1. *Left oblique—trot.* 2. MARCH; and this platoon doubles on the second. When the platoon which has aligned, is in rear of

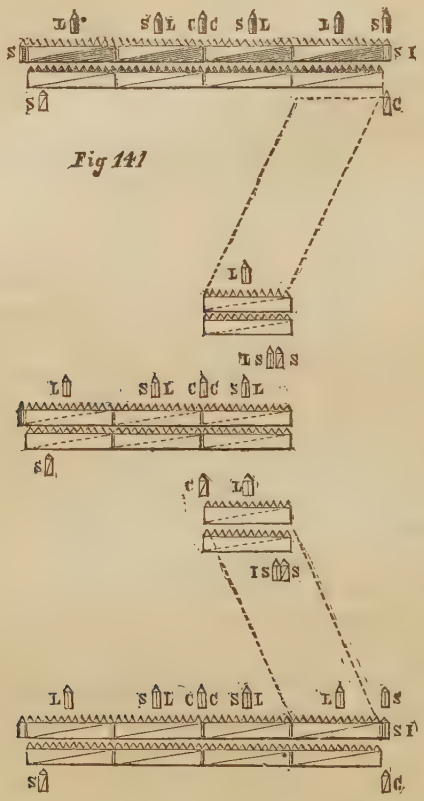


Fig 141

the one upon which it has doubled, its chief commands: 1. FORWARD. 2. *Guide right.* 3. *Walk.* 4. MARCH.

To cause the platoon which has obliqued to return to its place, the first captain commands:

1. *First platoon.* 2. INTO LINE.

At the command *into line*, the chief of the platoon commands: 1. *Right oblique — trot.* 2. MARCH; when opposite the ground the platoon is to occupy, he commands: 1. FORWARD. 2. *Guide left.* 3. *Walk;* and when the platoon is in line, *march.* The chief of the platoon commands *forward*, a little before its left file has passed beyond the right file of the platoon on which it is to form.

The second platoon executes the same movement, in obliquing to the right, behind the first platoon; the third in obliquing to the left behind the fourth, and the fourth in obliquing to the right behind the third; each platoon should always double upon that with which it forms the division.

577. The squadron marching in line, to execute the passage of obstacle upon the head of each platoon, the first captain commands:

1. *In each platoon — by fours* (or *by twos*) *— trot.* 2. MARCH. 3. *Guide right.*

(Fig. 142.) At the first command, the chiefs of platoon commands *by fours* (or *by twos*) *— trot.* At the command *march*, repeated by three officers, each platoon breaks by fours; the chiefs of platoon march at the head of their platoons; the guide of the right, who marches on the line of officers, places himself on the right of the chief of the first platoon; the guide of the left, in rear of the fourth platoon, and the file-closers on the right flank of their platoons. Each platoon having thus broken in column, should assume a direction parallel to that one which is the guide, keeping on the same line, and always at the distance of its front, to be able at any moment to re-form line.

To re-form the squadron, each platoon having broken by fours or by twos at the trot, right in front, the first captain commands:

1. *Form platoons.* 2. MARCH. 3. *Guide right.*

At the first command, the chiefs of platoon command, *form platoon.* At the command *march*, repeated by their officers, each platoon forms. If the ground does not permit all the platoons to form at once, the one before which the obstable is presented, forms

in the rear of the other platoon of its division, and retakes its place in line as soon as practicable.

Fig 142

SKIRMISHING.

578. When the squadron is in sight of the skirmishers, the first captain orders no signal except the rally. The chief of the skirmishers observes the movements of the squadron he covers, and conforms to them as soon as practicable, requiring his trumpeter to sound the necessary signals.

When the squadron changes front, the chief of the skirmishers

moves upon the new front, unless the first captain gives orders to the contrary. If the squadron is out of sight of the skirmishers, the first captain causes the signals which correspond to the movements he executes to be sounded, in order to give notice to the chief of the skirmishers, who conforms to them as soon as practicable. The trumpeter who follows the chief of the skirmishers should give the signals only upon the order of that officer. The skirmishers should execute their movements only by the signals of the trumpeter who accompanies the officer who commands them.

The squadron being in line, the first captain commands:

1. *First* (or *fourth*) *platoon — as skirmishers.* 2. MARCH.

At the first command, the chief of the first platoon orders the sabres to be returned, the holsters to be uncovered, and the arms to be loaded; he then commands: 1. *Platoon forward.* 2. *Guide right.* 3. TROT. At the command *march*, repeated by the chief of the platoon, this platoon moves forward. After marching 100 paces to the front, the chief of the platoon commands: 1. *Six files from right* (or *left*) *— as skirmishers.* 2. MARCH. 3. *Guide right* (or *left*); which is executed as prescribed, No. 559. When the first captain wishes the skirmishers to re-enter the squadron, he causes the *rally* to be sounded. At this signal the chief of the skirmishers rallies his platoon, as prescribed No. 559, and then rejoins the squadron at a *gallop*, directing himself upon one of the flanks to resume his place in line.

579. When the first captain wishes to relieve a platoon which is skirmishing, the chief of the new platoon moves forward upon the reserve of the platoon which is acting as skirmishers. On coming up abreast of it, he orders out six files as skirmishers; the remaining files halt and draw sabres. As soon as the new skirmishers have passed five paces beyond those they are to relieve, the latter *turn about* and rally upon their reserve. The platoon having rallied, is conducted back to the squadron at a *trot*.

580. When the entire squadron is to act as skirmishers, the first captain orders the sabres to be returned, the holsters to be uncovered, and the arms to be loaded; he then commands:

1. *Squadron forward.* 2. *Guide right.* 3. *Trot.* 4. MARCH.

Having arrived at the point where the reserve is to be established, about 100 paces from the front of the body to be covered, and more if it has been commanded, the first captain commands:

1. *Three first* (or *last*) *platoons — as skirmishers.* 2. MARCH.

At the command *march,* the chief of the platoon which is to support the skirmishers, halts that platoon, and causes sabres to be drawn. The chiefs of the three other platoons continue to march on, each directing himself by the shortest route, 100 paces to the front towards the part of the line his platoon is to occupy, and having reached it, he disperses his platoon as skirmishers. The right platoon covers the right of the regiment, and extends 30 or 40 paces beyond it; another platoon covers the centre, and the left platoon covers the left, extending also 30 or 40 paces beyond. The chiefs of these platoons remain 25 paces in rear of the line of skirmishers, and pass over the extent occupied by the troopers of their platoons. The reserve remains in rear of the centre of the line of skirmishers.

The first captain, followed by the first sergeant, keeps habitually half-way between the reserve and the skirmishers, to direct the movements. The second captain, followed by the second sergeant, passes the line, and gives notice to the first captain of every thing that it is important for him to know.

581. If the first captain wishes to rally the skirmishers upon themselves, he causes the *rally of skirmishers* to be sounded. At this signal each platoon rallies as rapidly as possible on its chief. If the first captain then wishes to rally the squadron, he moves upon the point where he intends it shall form, and causes the *rally* to be sounded where three-fourths of each platoon has rallied. At this new signal, the reserve and each platoon of skirmishers move at a *gallop* upon the point where the captain commanding is placed. The troopers who did not rejoin their platoon when it rallied upon itself, direct themselves towards the squadron.

The squadron being dispersed as skirmishers, if the first captain

wishes it to rally immediately, he orders the *rally* to be sounded; at this signal, the officers, the skirmishers, and the reserve, rally upon the point occupied by the first captain.

The troopers being dispersed as skirmishers, if the first captain wishes them to charge as foragers, he orders them to cease firing, and causes the disperse to be sounded. At this signal, the chiefs of platoon move forward in line, and the skirmishers draw sabres; they charge immediately. The reserve follows at *the trot*, or at *the gallop*, as may be necessary. After the charge, the first captain orders the *rally* to be sounded, when the troopers rally in rear of the reserve.

The skirmishers being rallied by platoons, if the first captain wishes to charge, he orders the charge to be sounded. At this signal, each chief of platoon conducts his platoon to the charge, in good order; the reserve supports the movement at *the trot* or *gallop*, The first captain places himself so as to be able to direct the general movement. The second captain charges with the platoon nearest to him. The platoons rally behind the reserve; the first captain moves upon that point at the same time that he orders the rally to be sounded.

The Column by Divisions.

582. The squadron being in line, if the first captain wishes to form it into column by divisions, he commands:

1. *Divisions right* (or *left*) *wheel.* 2. March. 3. *Halt* (or Forward). 4. *Guide left* (or *right*).

Which is executed in the same manner as the breaking of the troop or squadron into a column of platoons, either to halt or move forward without halting. The same movement may be executed when the squadron is marching in line.

The principles prescribed for the column of platoons are applicable to the march in column by divisions, the different modes of passing from line into column, and from column into line.

To gain ground towards its flanks or to the rear, employ the means prescribed for the column by platoons. The *wheels*—*about* can

be also executed by divisions. The distance measured from the croup of the horses of the rear rank of one division, to the head of the horses of the division which follows, should be equal to the front of the division, less the depth of the two ranks. In the wheels on a movable pivot by divisions, the ninth file of the platoon, upon which the wheel is executed, is the middle point of the radius of the wheel. *The pivot describes an arc of circle of ten paces.*

583. The squadron marching in column by platoons, right in front, to form the divisions at the same gait, the first captain commands:

1. *Form divisions.* 2. MARCH.

At the first command, the chiefs of the second and fourth platoons command, *platoon left — half-wheel.* At the command *march*, repeated by the same officers, the second and fourth platoons execute a *half-wheel to the left* on a fixed pivot. The first and third platoons continue to march straight forward, and after having marched thirty paces, their chiefs command, *halt.* The chiefs of the second and fourth platoons, when the *half-wheel to the left* is nearly terminated, command: 1. FORWARD. 2. *Guide right.* They move straight forward, and as soon as the right of their platoon arrives in the direction of the left file of the platoon which precedes, they command: 1. *Right — half-wheel.* 2. MARCH. 3. FORWARD. They move forward, and command *halt*, on arriving abreast of the platoon belonging to the same division. The lieutenants commanding the divisions then command, *left — dress*, move to the left of the division, rectify the alignment, command *front*, and return to the centre of their platoons.

584. The squadron marching in column by divisions, right in front, to break the divisions by platoons, the first captain commands:

1. *By platoons.* 2. MARCH. 3. *Guide left.*

At the first command, the chiefs of the second and fourth platoons command, *platoon right half-wheel.* At the command *march*, repeated by the same officers, the second and fourth platoons execute a *half-wheel to the right* on a fixed pivot, and the first and third

platoons continue to march on. The chiefs of the second and fourth platoons, the *half-wheel to the right* being nearly terminated, command: 1. FORWARD. 2. *Guide left;* they move straight forward, and as soon as the left file of their platoons arrives in the direction of the left file of the platoon which precedes, they command: 1. *Left half-wheel.* 2. MARCH. 3. FORWARD; and move forward in taking their proper distances.

The divisions are broken by platoons, on the same principles, in marching at *the trot* or *gallop.*

585. The squadron marching in column by platoons, right in front, to form divisions in doubling the gait, the first captain commands:

1. *Form divisions — trot.* 2. MARCH. 3. *Guide left.*

Which is executed as prescribed above, the first and third platoons continuing to march at the same gait, and the chiefs of the second and fourth platoons commanding: 1. *Platoon left—half-wheel — trot.* 2. MARCH. 3. FORWARD. 4. *Guide right;* and: 1. *Right half-wheel.* 2. MARCH. 3. FORWARD. 4. *Walk.* When they arrive abreast of the platoon on which they form, they command: 5. MARCH.

586. The squadron marching in column by divisions, right in front, to break the division by platoons, in doubling the gait, the first captain commands:

1. *By platoons — trot.* 2. MARCH. 3. *Guide right.*

At the first command, the chiefs of the first and third platoons commands, *trot;* those of the second and fourth platoons command, *platoon right half-wheel—trot.* At the command *march,* repeated by the chiefs of platoon, the first and third platoons move forward at *the trot.* The second and fourth execute their *half-wheel to the right* on a fixed pivot, at *the trot,* and the movement is completed as described above.

587. The squadron being in line, to break it by division by the right to march to the left, the first captain commands:

1. *Divisions break by the right — to march to the left.* 2. MARCH.

Which is executed as prescribed for a column of platoons.

To break the squadron by divisions to the rear by the right, to march to the left, the first captain commands:

1. *Divisions break by the right to the rear — to march to the left.* 2. MARCH.

Which is executed as prescribed for the column of platoons.

ARTICLE X.

EVOLUTIONS OF THE REGIMENT.

588. When the regiment is in line, the squadrons are drawn up on the same line, with intervals of twelve paces between them, and the field and staff of the regiment are posted as indicated No. 18.

When it is in column right in front, and on the march, the guide is habitually to the left, and as constantly to the right when the left is in front; in the march of the column the colonel does not indicate the guide, except in cases where he sees proper to depart from the principle just laid down. Whenever the guide is indicated by the colonel, the captains commanding all repeat it.

Successive alignment of the squadrons in the regiment.

589. The regiment being in line, the colonel causes the right general guide and the principal guide of the left of the first squadron to be placed thirty paces in front of the squadron opposite the right and left, and facing each other. The left general guide immediately places himself on the same line in front of the extreme left of the regiment, facing the right general guide.

The captain commanding the first squadron, on an intimation from the colonel, commands: 1. *Squadron Forward.* 2. *Guide right.* 2. March. The squadron having arrived within one pace of the new line, the captain commands *halt.* At this command the squadron halts, the captain, and the guides of the right and left advance and align themselves; the first captain commands *right—dress;* and when the alignment is complete, *front.*

The colonel then commands:

1. *Attention.* 2. *By squadron right*—Dress.

At the second command, the captain commanding the second squadron commands: 1. *Squadron forward.* 2. *Guide right.* 3. MARCH. The squadron having reached the rank of file-closers of the first squadron, the first captain commands: 1. *Squadron.* 2. HALT. The principal guide of the left throws himself out opposite the left of the squadron, faces to the right, and aligns himself on the guides in front of the first squadron; the officers and guides of the right and left align themselves correctly; the first captain throws himself to the left wing, and commands, *right — dress.* The squadron being aligned, the captain commands *front.*

Each captain commanding causes the movement to be executed in succession, and commands *march* as soon as the one preceding him commands *halt.* The regiment being aligned, the colonel commands *front.*

Alignment of the Regiment.

590. The regiment being in line, the colonel causes the general guides to be fixed on the new line, facing each other, and the guides of the left to be placed on intermediate points, facing to the right; he then commands:

1. *Attention.* 2. *Right* — DRESS.

At the second command, repeated by the captains commanding, the squadrons are aligned in such manner that the men of the front rank of each squadron may have the heads of their horses on the line of the guides. The regiment being aligned, the colonel commands *front.*

To break the regiment by fours.

591. The regiment being in line, the colonel commands:

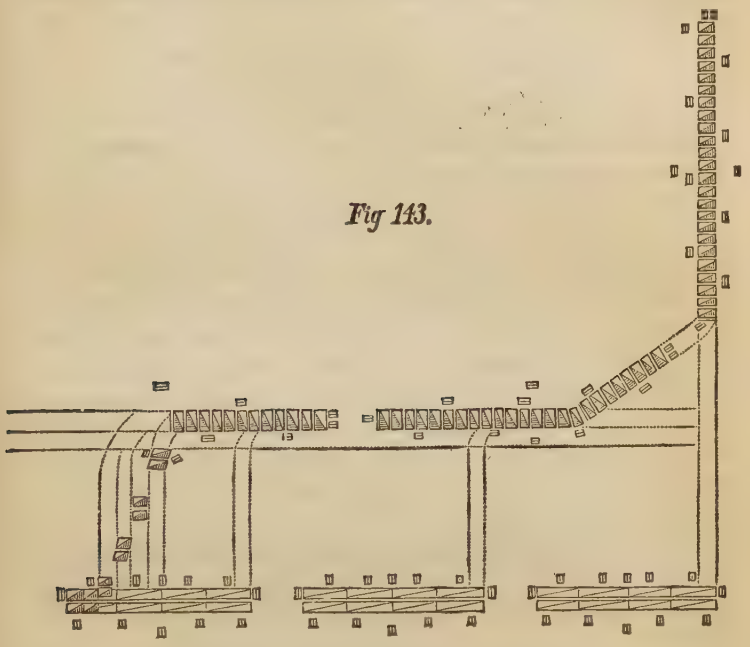
1. *Attention.* 2. *By fours.* 3. MARCH.

(Fig. 143.[1]) The second command is repeated by the captain commanding the first squadron. At the command *march,* repeated by the captain, *the first squadron* breaks by fours as in the school

[1] But three squadrons are figured.

of the squadron. The first captain of the second squadron commands *by fours*, in time to command *march* at the instant the fourth pla-

Fig 113.



toon of the squadron which precedes it, commences its movement. When the half of the second squadron has broken, the captain changes direction in order to join the column. The other squadrons break in succession in the same way, and change direction as directed for the second.

To form platoons at the same gait.

592. The regiment marching in column by fours, the right in front, the colonel commands:

1. *Attention.* 2. *Form platoons.* 3. MARCH.

The second command is repeated by the captain commanding

the first squadron. At the command *march*, also repeated by the captains, platoons are formed in the first squadron, as prescribed in the school of the squadron. The other squadrons continue to march, and platoons are formed in succession, in the same manner as in the first, at the commands: 1. *Form platoons.* 2. MARCH.

To break the platoons by fours at the same gait.

593. The regiment marching in column by platoons, right in front, the colonel commands:

1. *Attention.* 2. *By fours.* 3. MARCH.

At the second command repeated by the captain commanding the first squadron, the first captains of the other squadrons command *column*. At the command *march*, repeated by the captain commanding the first squadron, the captains commanding the other squadron command *halt*. The first captain of the second squadron, and in succession those of the other squadrons, commands: 1. *By fours.* 2. MARCH; in sufficient time for the head of the squadron after it is broken to be at its proper distance from the rear of the squadron which precedes.

If the column is marching at *a trot*, the chiefs of squadron, except the first, take *the walk* at the command *march*, and at the proper time for breaking the squadrons, command: 1. *By fours—trot.* 2. MARCH.

To form platoons in doubling the gait.

594. The regiment marching in column of fours, right in front, the colonel commands:

1. *Attention.* 2. *Form platoons — trot.* 3. MARCH.

At the second command repeated by the captain commanding the first squadron, the chiefs of the other squadrons command *trot*. At the command *march*, repeated by all the chiefs of squadrons, platoons are formed in the first squadron. The other squadrons take *the trot*, and form in succession at the command: 1. *Form platoons.* 2 MARCH; given by each chief the nearest the head of his squadron, is at its proper distance from the squadron which precedes.

To break the platoons in doubling the gait.

595. The regiment marching in column of platoon, right in front, the colonel commands:

1. *Attention.* 2. *By fours — trot.* 3. MARCH.

The second command is repeated by the chief of the first squadron, and at the command *march*, this squadron breaks by fours. The other squadrons continue to march at a *walk*, and the chiefs command in succession: 1. *By fours — trot.* 2. MARCH; at such time as to preserve their distance.

To form the regiment to the front, to the left, or upon the right into line.

596. The regiment marching in column by fours, the right in front, to form line to the front the colonel commands:

1. *Attention.* 2. *Front into line.* 3. MARCH.

At the second command, repeated by the chief of the first squadron, the chiefs of the other squadrons command, *head of column to the half left.* At the command *march*, repeated by the chiefs of squadron, the first squadron forms *front into line* as directed for a single squadron. The other chiefs command, *guide right,* throw themselves at the head of their squadron, and direct it by the shortest line to a point 100 paces behind the point the right of the squadron is to occupy in line; as soon as the head of each squadron reaches this point, the chief commands, *head of column to the half right,* and when the third platoon of his squadron is in the new direction, he commands, *front into line,* in time to give the command *march,* at the moment the head of his column arrives within thirty paces of the line of battle. The regiment being aligned, the colonel commands, *front.*

597. The regiment marching in column by fours, the right in front, to form line to the left flank, the colonel commands:

1. *Attention.* 2. *Left into line.* 3. MARCH.

The second command is repeated by the chief of the first squadron. At the command *march*, repeated by him, the first squadron is formed *into line to the left*, as prescribed in the school of the troop, No. 489. The other chiefs throw themselves to the head of their squadrons, and each, in succession, commands *left into line*, in time to command *march* the moment their first four files get to the proper turning point. The regiment being aligned, the colonel commands *front*.

598. The regiment marching in column by fours, the right in front, to form the line on the prolongation of the right flank, the colonel commands:

1. *Attention.* 2. *On the right into line.* 3. MARCH.

The second command is repeated by the chief of the first squadron. At the command *march*, also repeated by him, he forms his squadron into line on the right, as prescribed school of the troop, No. 490. The other chiefs of squadron command *guide right*, throw themselves to the head of their squadrons, and each commands *upon the right into line* in time to command *march*, at the proper point for turning to the right, in order to take its proper place in line. The regiment being obliqued the colonel commands, *front*.

To form the regiment into column with distance.

599. The regiment being in line, to break to the right by a general movement, the colonel commands:

1. *Attention.* 2. *Platoons right wheel.* 3. MARCH.

The second command is repeated by all the captains commanding. At the command *march*, also repeated by them, the move is executed at the same time in all the squadrons, as prescribed in the school of the troop, No. 510. At the moment the platoons have nearly completed the wheel, the captains commanding command, *halt*. The chiefs of squadron see that the chiefs of platoon, guides, etc., take their proper posts. If the colonel wishes to put the column in march without halting, he commands, when the wheel lacks about one-fourth of its completion:

4. FORWARD.

This command is repeated by the chiefs of squadron.

To break by the right to march to the left.

600. The regiment being in line, to break by successive movements from the right to pass before the front of the line, the colonel commands:

1 *Attention.* 2. *Platoons break by the right to march to left.* 3. MARCH.

At the second command, repeated by the captain commanding the first squadron, the chief of the first platoon commands: 1. *Platoon forward; Guide left.* At the command *march*, repeated by the chief of the first squadron, and by the chief of the first platoon, the movement is executed in the first squadron, as it is prescribed, school of the squadron, No. 563. The chiefs of the other squadrons repeat the second command in succession, in time to command *march* when the fourth platoon of the squadron which is on their right, is opposite the centre of the second platoon of their squadron.

To break to the rear by the right to march to the left.

601. The regiment being in line, to break by successive movements, the right to pass by the rear of the line, the colonel commands:

1. *Attention.* 2. *Platoons break to the rear by the right — to march to the left.* 3. MARCH.

At the second command, repeated by the captain commanding the first squadron, the chief of the first platoon commands, *platoon right — about wheel.* At the command *march*, repeated by both these officers, the first squadron executes the movement as prescribed, school of the squadron, No. 564. The chiefs of the other squadrons repeat the commands in succession, in time to command *march*, at the instant the fourth platoon of the squadron on their

right, after having finished its right about and advance, has executed three-fourths of its change of direction to the right.

To form the regiment into close column.

602. The regiment being in line, if it be the desire of the colonel to form it into a close column, faced to the right, he commands:

1. *Attention.* 2. *Squadrons right wheel—form close column.* 3. MARCH.

(Fig. 144.) At the second command, the captains commanding squadrons command, *squadron right wheel.* At the command *march,* repeated by the chiefs of squadrons, all the squadrons wheel *to the right.* The wheel being nearly completed, the chief of the first squadron throws himself to its left, and commands: 1. *Squadron.* 2. HALT. 3. *Left*—DRESS. 4. FRONT. The chiefs of the other squadrons command: 1. FORWARD. 2. *Guide left;* and at twelve paces from the squadron which precedes: 1. *Squadron.* 2. HALT. 3. *Left*—DRESS. 4. FRONT.

603. The regiment being in line, to form a close column without changing the front, the colonel commands: 1. *Attention.* 2. *Upon the third squadron form close column.* 3. MARCH.

(Fig. 145.) At the second command the chief of the third squadron throws himself to its left, and commands: 1. *Left*—DRESS. 2. FRONT. The chief of the second squadron commands, *platoons right wheel—fourth platoon left half wheel.* The chief of the first squadron commands, *platoons right wheel—head of column to the half right.* The chief of the fourth squadron commands, *platoons right wheel—first platoon right about wheel.* The chief of the fifth squadron commands, *platoons right wheel—head of column to the half right.*

At the command *march,* repeated by all the chiefs of squadrons except that of the third, all the other squadrons break *by platoons to the left* and *right;* and when the wheels are nearly completed each chief on the right commands: 1. FORWARD. 2. *Guide right;* those on the left command: 1. FORWARD. 2. *Guide left.* Each one throws himself at the head of his column to direct it.

The chief of the fourth platoon second squadron, after having

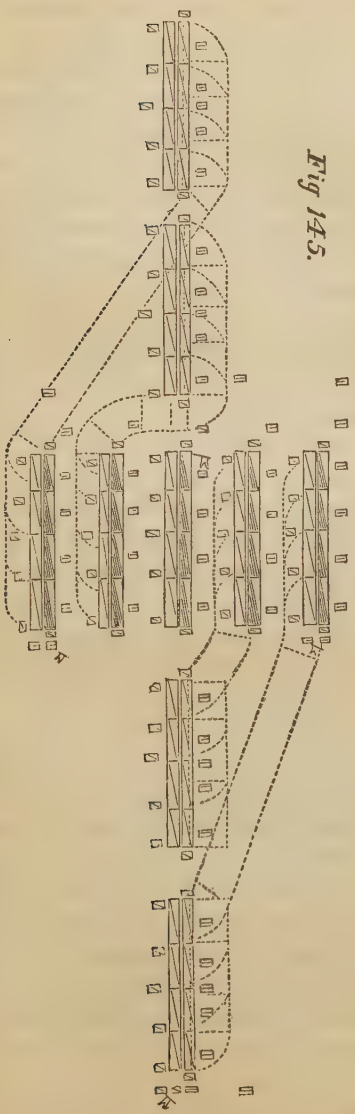


Fig 145.

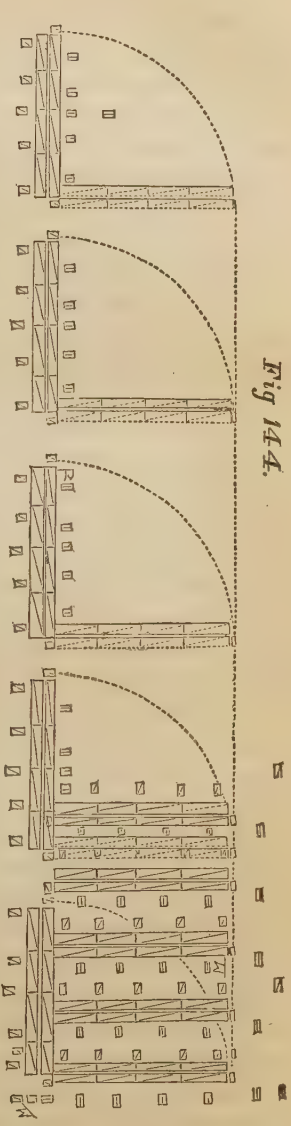


Fig 144.

executed the *half wheel to the left*, moves forward, and commands: 1. *Left* — TURN. 2. *Forward;* so as to enter the column in a direction parallel to the front of the third squadron, passing near the heads of the horses of the officers. The other platoons of this squadron change direction on the same ground, and by the same commands from their chiefs. The chief of the squadron continues to march at the head of his squadron, and commands, *platoons right wheel*, in time to command *march*, when its fourth platoon has arrived opposite the right of the fourth platoon of the third squadron. The platoons having executed the wheel, he commands: 1. HALT. 2. *Left* — DRESS. 3. FRONT.

The chief of the fourth platoon of the first squadron, after having executed his wheel to the left, commands: 1. *Right* — TURN. 2. FORWARD; and directs himself diagonally to the front in such manner as to turn to the left on a line parallel to the front of the second squadron at the command, *head of column to the half-left*, given by the chief of the squadron when the fourth platoon arrives opposite the right flank of the squadron already formed. The rest of the movement is performed in precisely the same manner as has been laid down for the second squadron.

The chief of the first platoon of the fourth squadron, after having executed his *right about wheel*, moves forward, and commands: 1. *Left* — TURN. 2. FORWARD; so as to enter the column in a direction parallel to the third squadron, at the command, *head of column to the left*, given by the chief of squadron, when this platoon has gained a distance of twelve paces in rear of the third squadron. The three other platoons execute a *right turn* on the same ground on which the first platoon made its *right about*, and *left turn* on the same ground that the first did. As soon as the chief of the squadron finds himself opposite the left of the third squadron, he halts, allows his column to pass him, and gives the command, *platoons left wheel*, in time to command *march* as soon as the fourth platoon gets opposite its place. The platoons having executed the wheel, he commands: 1. HALT. 2. *Left* — DRESS. 3. FRONT.

The chief of the first platoon of the fifth squadron, after having

executed the wheel *to the right*, commands: 1. *Right*—TURN. 2. FORWARD; and directs himself diagonally, in such manner as to turn to the left on a line parallel to the fourth squadron, at the command, *head of column to the half-left*, given by the chief of the squadron when the first platoon reaches the left flank of the squadrons already formed. The squadron is then brought to its proper position in the column by the same commands and means as for the fourth squadron.

604. The regiment being in line, to form in close column, with the left in front, without changing the front, the colonel commands:

1. *Attention.* 2. *Upon the third squadron—form close column—the left in front.* 3. MARCH.

The commands are repeated, and the movements executed in accordance with the principles laid down above, with this difference, that the squadrons on the right form in rear of the squadron which serves as the basis of the formation, while those on the left form in advance of this same squadron; and that the alignment is to the *right*.

605. The regiment marching in line, if the colonel wishes to form a close column, faced to the right, without halting, he commands:

1. *Attention.* 2. *Squadrons right wheel—form close column.* 3. MARCH.

At the second command, the captains commanding command, *squadrons right wheel—trot.* At the command *march*, repeated by the captains commanding, a movement is executed. The wheel being nearly completed, the chief of the first squadron commands: 1. FORWARD. 2. *Guide left.* 3. *Walk.* 4. MARCH; the other chiefs of squadron command: 1. FORWARD. 2. *Guide left;* and at twelve paces from the preceding squadron: 1. *Walk.* 2. MARCH.

To march in column.

606. The principles of the march in column with distance, as

prescribed for the troop or squadron, are applicable to the march of the regiment; the squadrons are separated by a distance equal to the front of a platoon, plus twelve paces the interval between squadron in line.

The regiment being in column with distance, right in front, the colonel indicates to the adjutant the direction he wishes the column to take; he commands:

1. *Attention.* 2. *Column forward.* 3. MARCH.

The second command is repeated by the chiefs of squadron. At the command *march*, also repeated by these officers, the movement is executed as for a single troop or squadron.

To halt the column, the colonel commands:

1. *Attention.* 2. *Column.* 3. HALT.

The second command is repeated by the chiefs of squadron, and at the command *halt*, all the platoons halt at once.

To change the direction of the column with distance.

607. The regiment marching in column with distance, with the right in front, to change the direction, the colonel commands:

Head of column to the left.

At this command, repeated by the chief of the first squadron, this squadron executes the movement as is prescribed for the change of direction of a column of platoons, school of the troop, No. 512. Each of the chiefs of squadron in succession gives the same command when the head of his column reaches the point where the first squadron changed its direction. The principal guide of each squadron places himself at the wheeling point, and remains there until the last platoon of his squadron has commenced the wheel, when he is relieved by the guide of the succeeding squadron.

608. The regiment marching in column with distance, with the right in front, to cause it to face in the opposite direction, the colonel commands:

1. *Attention.* 2. *Platoon left about wheel.* 3. MARCH. 4. FORWARD.

The last three commands are repeated by the chiefs of squadron; the movement is executed in all the squadrons, as prescribed for a single squadron, No. 574.

609. The regiment being in column with distance, at a halt or on the march, on order to gain ground in the direction of one of the flanks, the colonel commands:

1. *Attention.* 2. *By fours to the left* (or *right*). 3. MARCH. 4. FORWARD.

The last three commands are repeated by the chiefs of squadron, and the movement is executed in all the squadrons, as prescribed for a single troop, No. 528.

610. The regiment being in column with distance, at a halt or on the march, to cause it to face in the opposite direction, the colonel commands:

1. *Attention.* 2. *By fours left* (or *right*) *about wheel.* 3. MARCH. 4. FORWARD.

The last three commands are repeated by the chiefs of squadrons, and the movement is executed as for a single troup or squadron, No. 573.

611. The regiment marching in column with distance, to cause it to gain ground to the left or right, without changing the front, the colonel commands:

1. *Attention.* 2. *Left* (or *right*) *oblique.* 3. MARCH.

The last two commands are repeated by the captains commanding, and the movement is executed in each squadron as prescribed for a single troop or squadron.

The column having obliqued sufficiently, the colonel commands:

FORWARD.

This command is repeated by the chiefs of squadron, and the movement is executed as in a single troop.

To form the regiment into line upon one of its flanks, or on the prolongation of one of its flanks.

612. The regiment being in column with distance, with the right in front, to form in line upon its left flank, the colonel commands:

1. *Attention.* 2. *Left into line wheel.* 3. MARCH.

The second command is repeated by the captains commanding squadrons. At the command *march,* repeated by the chiefs of squadron, the movement is executed in each squadron as prescribed, No. 530. The regiment being aligned, the colonel commands, *front.*

613. The regiment marching in column with distance, the right in front, to form into line on the prolongation of the right flank, the colonel commands:

1. *Attention.* 2. *On the right into line.* 3. MARCH.

The second command is repeated by the chief of the first squadron. At the command *march,* also repeated by him, the movement is executed in the first squadron as prescribed for a single troop, No. 530. The chiefs of the other squadrons command *guide right,* throw themselves to the head of their columns, and in succession command, *on the right into line,* in time to command *march,* when the first platoon is twelve paces beyond the left of the one which precedes. The regiment being aligned, the colonel commands, *front.*

To form the regiment into line to the front.

614. The regiment being in column with distance, the right in front, in order to form it into line upon the head of the column, the colonel commands:

1. *Attention.* 2. *Front into line.* 3. MARCH.

(Fig. 146.) At the second command, repeated by the captains commanding the first squadron, the chiefs of the others command, *column forward—head of column to the half left.* At the command *march,* repeated by all the chiefs of squadron, the first squad-

ron is formed as prescribed for a troop, No. 535. The chiefs of the other squadrons place themselves at the head of their column. The

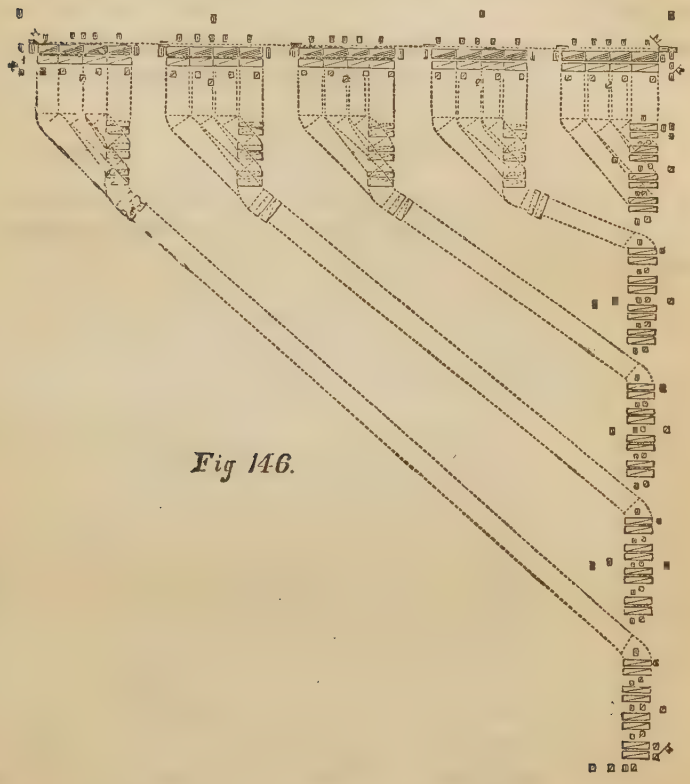


Fig 146.

first platoon of each squadron having made a half wheel, is moved forward in a diagonal direction by command of its chiefs, the others following in regular succession. The chiefs of squadron command *guide right* as soon as the first platoon has changed its direction to the left. When the head of the second squadron gets within sixty paces of the line, the chief of squadron commands, *head of column to the half right;* the chief of squadron commands, *front into line,* in time to command *march,* when the third platoon has turned to

the right, and the fourth platoon is marching towards its place in the line. The other squadrons are brought up upon the line in the same manner as the second. The regiment being aligned, the colonel commands *front.*

615. The regiment being in column with distance, the right in front, if it be the wish of the colonel to bring it into line faced to the rear, he commands:

1. *Attention.* 2. *Into line faced to the rear.* 3. MARCH.

(Fig. 147.[1]) At the second command, repeated by the chiefs of the first squadron, the chiefs of the other squadrons command, *column forward — head of column to the half right.*

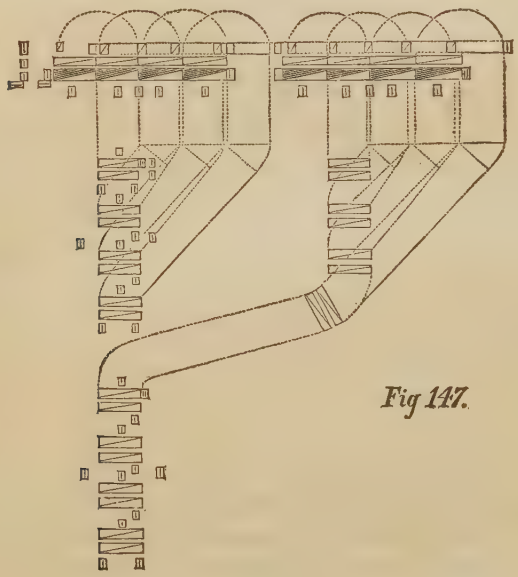


Fig 147.

At the command *march*, the first squadron performs the movement as directed for a single troop or squadron, No. 537. The second squadron, and the others in succession, march in a diagonal

[1] Two squadrons only are figured.

direction towards the line, the chief of squadron at its head; when at the distance of sixty paces from the line, he commands, *head of column to the half left,* followed by the command, *into line faced to the rear,* just as the third platoon has taken the new direction, and before the fourth has commenced the half-wheel. The squadron is then formed into line in the same manner as the first, by the commands: 1. *Platoon left — about wheel.* 2. MARCH. 3. HALT. 4. *Right* — DRESS. 5. FRONT. The regiment being aligned, the colonel commands, *front.*

To form a column with distance into line by the union of two movements.

616. The regiment marching in column with distance, the right in front, and a portion of the column having changed its direction to the right, if it is desired to come into line faced to the front, the colonel halts the column, at the moment the fourth platoon of the squadron which last entered upon the new direction, has marched forward twelve paces after turning to the right, and commands:

1. *Attention.* 2. *To the left — and front into line.* 3. MARCH.

(Fig. 148.) At the second command, repeated by the field officers, the chiefs of squadron who are in the new direction command, *left into line, wheel.* The chief of the squadron immediately in rear of the one which entered the new direction last, commands, *front into line.* The chiefs of the other squadrons command, *column forward — head of column to the half left.* At the command *march,* repeated by the field officers and by the chiefs of squadron, the portion of the column in the new direction forms to the *left into line,* which the rear portion forms to the *front into line.* The regiment being aligned, the colonel commands, *front.*

The column marching left in front, and having changed direction to the left, is brought into line to the front, upon the same principles, but by inverse means.

617. The regiment marching in column with distance right in front, and one portion having changed direction to the left, to form it into line faced to the rear, the colonel halts the column the

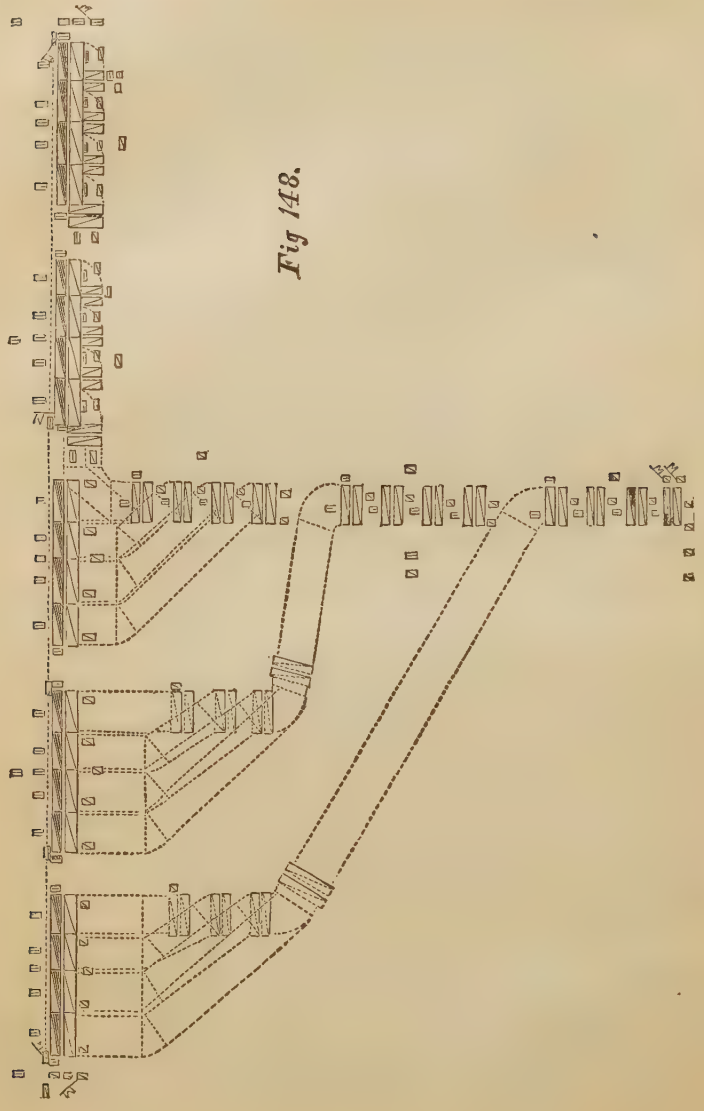


Fig 148.

moment the fourth platoon of the squadrŏn which last entered the new direction has turned to the left, and commands:

1. *Attention.* 2. *To the left—and upon the head of the third* (or *other*) *squadron—into line faced to the rear.* 3. MARCH.

(Fig. 149.[1]) At the second command, repeated by the field officers, the chiefs of squadron whose squadrons are in the new direction (first and second) command, *left into line wheel.* The chief of the

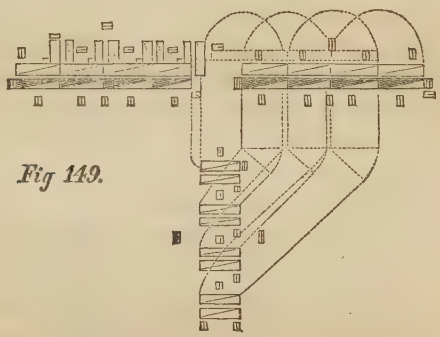


Fig 149.

squadron in rear of the last which is in the new direction (say the third), commands, *by inversion front into line.* The chiefs of the remaining squadrons command: 1. *Column forward.* 2. *Head of column to the half right.* At the command *march,* repeated by the field officers and by the chiefs of squadrons, the squadrons are brought into line; those on the new line are brought *to the left into line,* while those in rear, after having been brought *by inversion front into line,* complete the movement by *platoons left about wheel.* The regiment being aligned, the colonel commands, *front.*

The column marching left in front, having changed direction to the right, a portion still being in the old direction, is brought into line upon the same principles, but by inverse means.

618. The regiment being in column with distance, the right in front, to form front into line upon a line that the head of the column has passed, the colonel commands:

[1] But two squadrons, the second and third, are figured.

1 *Attention.* 2. *Upon the third* (or *other*) *squadron, front into line.* 3. MARCH.

At the second command, repeated by the field officers, the chiefs of squadrons which are in front of the designated squadron command, *platoons right about wheel.* The chief of the third squadron commands, *front into line.* The chiefs of the fourth and fifth squadrons command: 1. *Column forward.* 2. *Head of column to the half left.*

At the command *march*, repeated by the field officers and by the chiefs of squadron, the third squadron, and those in its rear, perform the movement *front into line* with the right in front. The chiefs of the first and second squadrons, after having wheeled about by platoons, conform to what is prescribed for *into line faced to the rear upon the head of the column*, except that they complete the movement by *a left about wheel* by platoons.

The regiment being aligned, the colonel commands, *front.*

To form a close column into line upon one of its flanks, or upon the prolongation of one of its flanks to the front.

619. The regiment being in close column, the right in front, to form it into line upon the left flank of the column, the colonel commands:

1. *Attention.* 2. *By the rear of the column — left into line wheel.* 3. MARCH.

(Fig. 150.) At the second command, the chief of the fifth squadron commands, *squadron left wheel.* The chiefs of the other squadrons command: 1. *Squadrons forward.* 2. *Guide left.* At the command *march*, repeated by the chiefs of squadron, the first four squadrons move forward; the fifth executes its wheel to the left; when it is nearly completed the chief commands: 1. FORWARD; and afterwards: 2. *Squadron.* 3. HALT. 4. *Left* — DRESS. 5. FRONT. The chief of the fourth squadron commands, *squadron left wheel*, in time to command *march*, when the fifth squadron

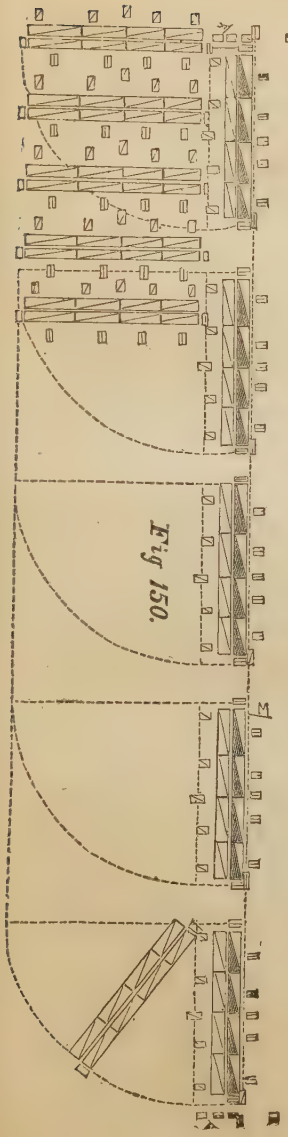


Fig 150.

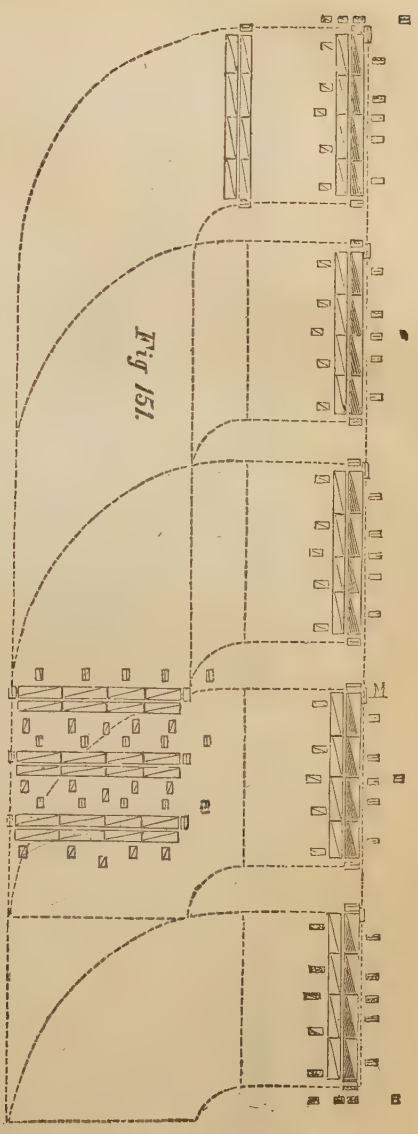


Fig 151.

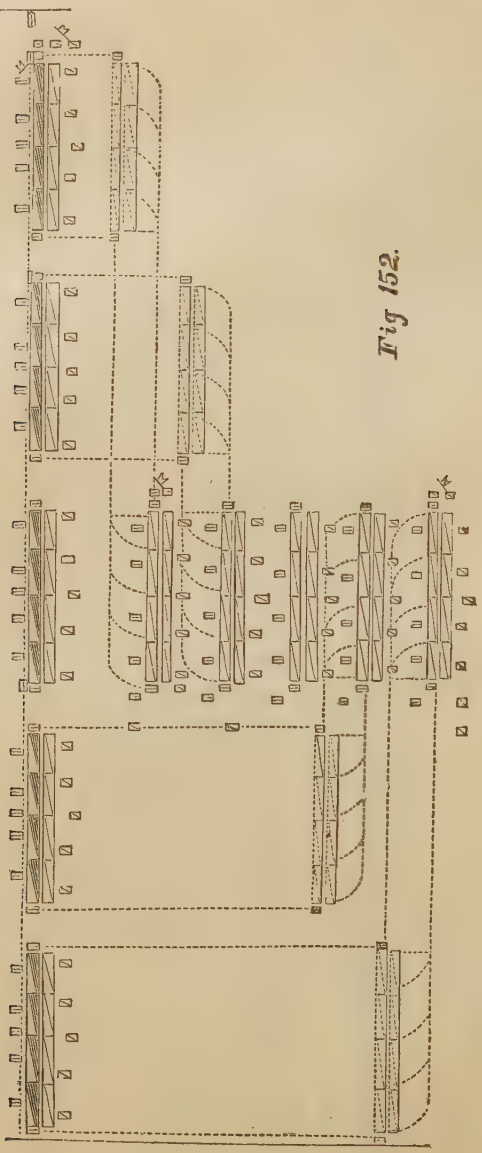


Fig 152.

has made two-thirds of its wheel to the left, completing the movement as directed for the fifth squadron. The chiefs of the other squadrons conform in succession to what has been prescribed for the fourth. The regiment being aligned, the colonel commands *front.*

620. The regiment marching in close column, the right in front, to form it into line on the prolongation of the right flank to the front, the colonel commands:

1. *Attention.* 2. *On the right into line.* 3. MARCH.

(Fig. 151.) At the second command, the chief of the first squadron commands, *right.* At the command *march,* he commands *turn;* when the wheel is nearly completed, he commands: 1. FORWARD. 2. *Guide right;* and when the squadron reaches the new line: 1. *Squadron.* 2. HALT. 3. *Right*—DRESS. 4. FRONT. The chiefs of the other squadrons command, *guide right,* throw themselves to the right of their squadrons, and command in succession, *right,* in time to give the command *turn,* when their squadron has gone the proper distance beyond the left of the squadron which precedes; the rest of the movement is executed as directed for the first squadron. The regiment being aligned, the colonel commands *front.*

To deploy a close column.

621. The regiment being in close column, the right in front, to deploy it in advance of the head of the column, on one of the interior squadrons, the colonel commands:

1. *Attention.* 2. *Upon the third squadron—deploy column.* 3. MARCH.

(Fig. 152.) At the second command, the chiefs of the first and second squadrons command, *platoons right wheel;* the chiefs of the fourth and fifth command, *platoons left wheel.* The chief of the third squadron commands, 1. *Squadron forward;* 2. *Guide right.* At the command *march,* repeated by all the chiefs of squadron, ex-

cept that of the third, their squadrons break by platoons to the *right* and *left*, when the wheels are nearly complete, the chiefs of the first and second squadrons command: 1. FORWARD. 2. *Guide left*; those of the third and fourth command: 1. FORWARD. 2. *Guide right.* They all throw themselves to the head of their column. The chief of the third squadron gives the command *march*, when his front is unmasked; halts his squadron one pace behind the line, and commands: 1. *Right* — DRESS. 2. FRONT.

The chiefs of the other squadrons march at the head of their respective columns, until they have reached the point on the *right* or *left* that the *left* or *right* of their squadron should be from the squadron which precedes them on the left or right; they then halt in their own persons, allow their squadrons to march past them, and command, *platoons left wheel*, if they are on the right, and, *platoons right wheel*, if they are on the left of the third squadron, in time to give the command *march*, the moment the rear platoon has gotten its proper interval; the wheels being nearly completed, the chiefs on the right command: 1. FORWARD. 2. *Guide left*; those on the left: 1. FORWARD. 2. *Guide right.* When the squadrons reach the rank of file-closers of the squadron on the left or right, the chiefs command: 1. *Squadron.* 2. HALT. 3. *Left* (or *right*) — DRESS. 4. FRONT. The regiment being aligned, the colonel commands, *front.*

622. The squadron on the march in close column, right in front, to deploy forward without halting, the colonel commands:

1. *Attention.* 2. *On the first squadron—deploy column.* 3. MARCH.

At the second command, the chief of the first squadron commands *Guide right*, and throws himself in front of the centre of his squadron; the other chiefs command, *platoons left wheel—trot.* At the command *march*, repeated by the chiefs of the last four squadrons, the first squadron continues to march; the others break by *platoons left wheel — trot*, and when the wheel is nearly completed, each chief of squadron commands: 1. FORWARD. 2. *Guide right.* After reaching the point the right of his squadron ought to occupy, he halts, allows his squadron to march past him, and commands, *platoons right wheel*, in time to command *march*, when his first

platoon has its proper place; the wheels being nearly completed, he commands: 1. FORWARD. 2. *Guide right;* throws himself in front of the centre of his squadron, and when he reaches the line on which the first is marching, commands: 1. *Walk.* 2. MARCH.

March in line.

623. The regiment being in line, to march it to the front, the colonel commands:

1. *Attention.* 2. *Squadrons forward.* 3. *The right* (or *left*) *squadron, the squadron of direction.* 4. MARCH.

The second command is repeated by the field officers, and chiefs of squadrons; at the third command, repeated by the field officers, the chiefs of squadron command, *guide right* (or *left*); and the adjutant indicates the direction to be taken by the guide of the right of the first squadron. At the command *march,* repeated by the field officers, and the chiefs of squadron, the regiment moves off, and the first squadron conforms to what is prescribed for the march of a single troop or squadron, No. 507; the others are careful to preserve the alignment and their intervals on the side of the guide.

The regiment marching in line is halted at the command:

1. *Attention.* 2. *Squadrons.* 3. HALT. 4. *Right* (or *left*) — DRESS.

The last three commands are repeated by the field officers and the chiefs of squadron. The captains align their squadrons, and command *front.* The regiment being aligned, the colonel commands *front.*

624. The regiment marching in line, with the guide right, to cause it to gain ground to the front and flank at the same time, the colonel commands:

1. *Attention.* 2. *Platoons right half wheel.* 3. MARCH. 4. FORWARD.

When the colonel wishes to renew the march to the front, he commands:

1. *Attention.* 2. *Platoons left half wheel.* 3. MARCH. 4. FORWARD.

625. To gain ground to the right without at the same time gaining to the front, the colonel commands:

1. *Attention.* 2. *Platoons right wheel.* 3. MARCH. 4. FORWARD.

The regiment having gained sufficient ground to the right, the colonel commands:

1. *Attention.* 2. *Platoons left wheel.* 3. MARCH. 4. FORWARD.

626. The regiment marching in line with the guide right, to cause it to march in retreat, the colonel commands:

1. *Attention.* 2. *Platoons right about wheel.* 3. MARCH. 4. FORWARD.

To cause it to resume the march to the front, the colonel commands:

1. *Attention.* 2. *Platoons left about wheel.* 3. MARCH. 4. FORWARD.

The last three commands are repeated by the field officers and chiefs of squadron.

To change the front of the line.

627. The regiment being in line, if it is wished to change the front of the line so that it shall face to the right, the colonel commands:

1. *Attention.* 2. *Change front on the right wing.* 3. MARCH.

At the second command, repeated by the field officers, the chiefs of squadron command, *platoons right wheel.* At the command *march*, repeated by the field officers and chiefs of squadron, all the squadrons break by platoons to the right; when the wheels are nearly completed, the chief of the first squadron commands: 1. *Front into line.* 2. MARCH. 3. *Guide right.* The chiefs of the other squadrons command: 1. FORWARD. 2. *Head of column to the*

half left, the rest of the movement is executed as prescribed for coming front into line, the right being in front, No. 535. The regiment being aligned, the colonel commands, *front.*

628. The regiment being in line, to cause it to change its front to the left, at the same time gaining ground to the rear, the colonel commands:

1. *Attention.* 2. *Change front to rear on the right wing.* 3. MARCH.

At the second command repeated by the field officers, the chiefs of squadrons command, *platoons right wheel.* At the command *march*, repeated by the field officers and chiefs of squadron, all the squadrons break by *platoons to the right;* when the wheels are nearly completed, the chief of the first squadron commands: 1. *By inversion front into line.* 2. MARCH. 3. *Guide left;* the chiefs of the other squadrons command: 1. FORWARD. 2. *Head of column to the half right;* the remainder of the movement is executed upon the principles for *coming into line faced to the rear.* The regiment being aligned, the colonel commands *front.*

To pass a defile.

629. The regiment being in line, and it is proposed to pass a defile in front of some point of the line, say the interval between the third and fourth squadrons, and the defile is wide enough to admit the front of a division, the colonel commands:

1. *Attention.* 2. *On the fourth platoon of the third squadron, and the first of the fourth, pass the defile in front.* 3. MARCH.

(Fig. 153.) At the second command, repeated by the field officers, the chief of the third squadron commands, *platoons left wheel —fourth platoon forward;* that of the fourth squadron commands, *platoons right wheel—first platoon forward.* The chiefs of the first two squadrons command, *platoons left wheel;* and the chief of the fifth, *platoons right wheel.* At the command *march*, repeated by the field officers, and the chiefs of squadron, the two platoons designated march forward, and obliquing to the right and left, unite; all the others break to the *left* and *right*, and the wheels being nearly

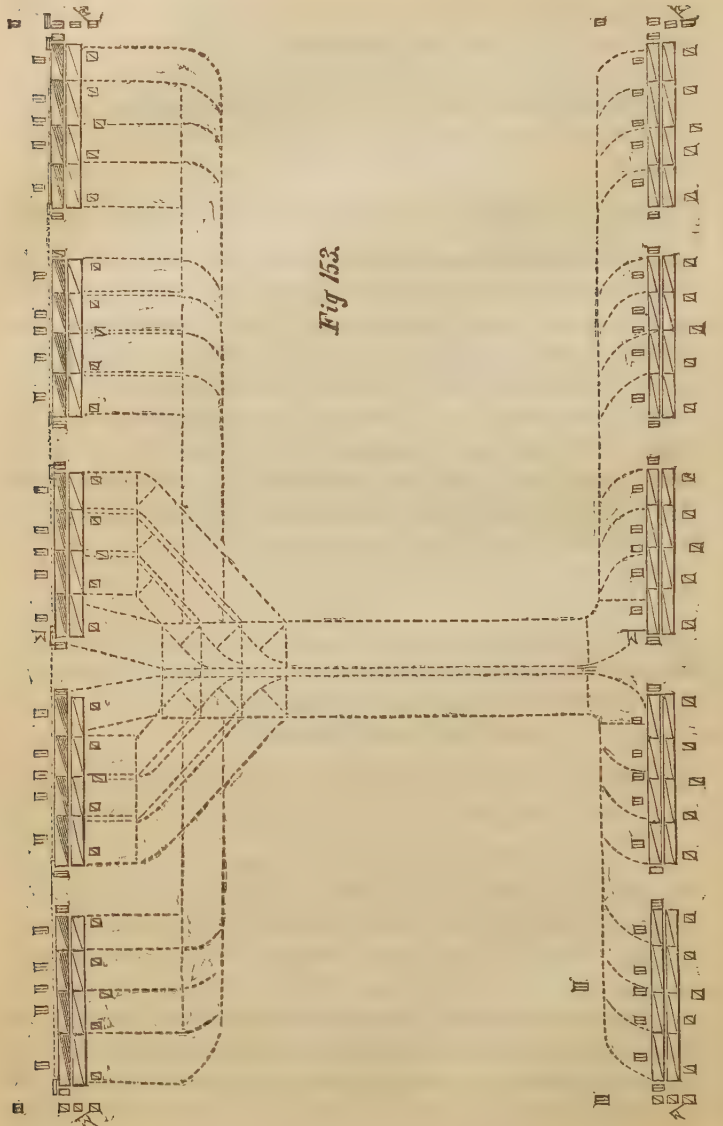


Fig 152.

completed, the chiefs of the squadron on the right command: 1 FORWARD. 2. *Guide left;* those of the squadrons on the left: 1. FORWARD. 2. *Guide right.* The platoons of the right and left columns so regulate their march as that those of the same number coming from the head of the column shall reach the turning-point at the same time, so that when the turn is completed they may march through the defile abreast each other. The column thus formed passes the defile presenting the front of a division, and preserving the distances prescribed for a column of platoons.

When the two squadrons at the head of the column have cleared the defile, the colonel commands:

1. *Attention.* 2. *Front into line.* 3. MARCH.

The second command is repeated by the field officers and the chiefs of the third and fourth squadrons. At the command *march*, repeated by these same officers, these two squadrons form *front into line*, the head of the columns of platoons obliquing to the right and left, in order to regain the interval which should separate squadrons The chiefs of the other squadrons continue to march forward, and command, those on the right, *head of column to the right*; those on the left, *head of column to the left.* The columns move parallel to the line of battle, and when the heads of squadrons reach the proper points, those of the right column are brought *on the left into line*, and those of the left *on the right into line.* The regiment being aligned, the colonel commands, *front.*

630. The regiment being in line, to pass a defile in rear of the line, the colonel commands:

1. *Attention.* 2. *By platoons from the wings, to pass the defile in rear of the interval between the third and fourth squadrons.* 3. MARCH.

At the second command, repeated by the field officers, the chief of the first squadron commands, *platoons break to the rear by the right, to march to the left.* At the command *march*, repeated by these same officers, the first squadron breaks as directed, school of the

squadron, No. 564, and the column marches towards the defile in a direction parallel to the regiment, until its head reaches the defile, when it turns to the left. The chief of the second squadron repeats these commands time enough to follow the first squadron at its proper distance; the chief of the fifth squadron at the same time commands: 1. *Platoons break to the rear by the left, to march to the right.* 2. MARCH; so that the two columns may reach the defile at the same time, and join after turning into it, presenting the front of a division. The third and fourth squadrons break by the same commands, and pass through the defile in the same way as has been prescribed for the second and fifth. When the squadrons, after having passed the defile, reach the new line established in rear of the defile, the first turns to the left, and when the double column reaches it, the second turns to the left, and the fifth to the right. When the last platoon of each column has turned into the line, and the two are separated by the interval between squadrons, the colonel, who marches in rear, commands:

1. *Attention.* 2. *Column.* 3. HALT. 4. *To the left and right into line.* 5. MARCH. 6. *Right* — DRESS.

All these commands, except the first, are repeated by the field officers and chiefs of squadron. The regiment being aligned, the colonel commands, *front.*

The Charge.

631. The regiment marching in line, the colonel commands:

1. *Attention for the charge.* 2. *Draw* — SABRE. 3. TROT. 4. MARCH.

The third command is repeated by the field officers, and by the chiefs of squadron. At the command *march*, repeated by these same officers, the squadrons take *the trot.* After having gone 150 paces at this gait, the colonel commands:

1. *Gallop.* 2. MARCH.

The first command is repeated by the field officers, and by the chiefs of squadron; and at the command *march*, also repeated by them, the squadrons take the gallop. After having gone about one hundred paces at this gait, and being only about sixty paces from the supposed line, the colonel causes *the charge* to be sounded. At this sound, repeated by all the trumpets, all the officers command *charge.* The men of the front and rear ranks place their sabres in the positions for *the charge* (see school of the troop, No. 554).

The colonel wishing to arrest the charge, commands:

1. *Attention.* 2. *Squadrons.* 3. HALT. 4. *Right* (or *left*) — DRESS.

At the command *attention*, repeated by all the officers, the squadrons prepare to change the gait, and the troopers return sabres. At the command *squadrons*, repeated by the field officers and chiefs of squadron, the chiefs of platoon command *platoon*, and the squadrons take *the trot.* At the command *halt*, repeated by the field officers, the chiefs of squadron, and chiefs of platoon, the squadrons halt.

At the command *right* (or *left*) — *dress*, repeated by the field officers, and by the chiefs of squadron, the squadrons are aligned. The regiment being aligned, the colonel commands, *front.*

At the sound of the charge, the officers remain in their places in line; the colonel and other field officers place themselves upon the officers' line.

Charge in Column.

632. The charge in column is employed against infantry formed in column or in square. For this purpose, the regiment is formed in *close column*, and the squadrons take in succession a distance equal to double their front, so that the first squadron having charged, it is promptly followed by the second, which, if the first has made

an opening in the square, throws itself into it, and completes its overthrow. In case the first squadron is repulsed, it retires by the right and left, to re-form in the rear, disengaging the front of the second squadron; this squadron renews the charge; if it does not succeed, it clears the ground for the third; and thus they continue until the charge may have completely failed.

Such charges, made in rapid succession, ought to finish by breaking the square, if they are directed as they ought to be, against the angles, which are the weakest points, unless guarded by artillery.

ARTICLE XI.

LIGHT ARTILLERY TACTICS.

SCHOOL OF THE PIECE.

633. Light artillerymen should, before receiving instruction in their duties at the piece, be familiar with the first part of the school of the soldier, as laid down in Infantry Tactics, and with the Manual of the Sabre, No. 440, and following. If intended for horse artillerymen, they should also be instructed in the duties of the trooper, No. 382, and following.

The drivers—one to every pair of horses—should have experience in the management of horses in harness.

634. The cannoneers of a piece, when united, constitute a *gun detachment*, which is composed ordinarily of nine men in mounted artillery, and eleven in horse artillery; two of whom—the gunner who commands the detachment, and the chief of caisson—should be corporals.

The detachment is formed by the gunner, who causes the cannoneers to form in two ranks, eighteen inches between them, elbows slightly turning. He tells the detachment off from the right, No. 1 being on the right of the rear rank, No. 2 on the right of the front rank, No. 3 on the left of No. 1, No. 4 on the left of No. 2, and so on, the even numbers being in the front, and the odd numbers in the rear rank. The chief of caisson is told off as No. 8. When the detachment is composed of more or less than eight men, the chief of caisson should be the highest even number.

When the detachment, from any cause, consists of less than nine men, the higher numbers are left out, and additional duties are imposed upon the cannoneers present.

When the chief of the piece, who should be a sergeant, is present, and is not acting as the instructor, he performs the duties, and takes the position of the gunner, who then takes post one yard in rear of the right file, and acts as file-closer, except when the chief of piece is out of ranks, when he resumes his post.

For purposes of instruction, each detachment should be halted in front of, and facing the piece, the latter being unlimbered,[1] and the different numbers called upon successively, to perform their respective duties *in detail*, while the rest of the detachment are required to attend to the instruction, and to the manner in which the motions are performed.

Posts of the cannoneers. Piece unlimbered.

635. The gunner is at the end of the trail handspike; Nos. 1 and 2 are about two feet outside the wheels, No. 1 on the right, and No. 2 on the left; with howitzers, they are rather in rear of the muzzle; with guns, in line with the front part of the wheels. Nos. 3 and 4 are in line with the knob of the cascable, covering Nos. 1 and 2; No. 5 five yards in rear of the left wheel; No. 6 in rear of the limber, which is turned about so as to face towards the piece (see No. 29); and No. 7 on his left, covering No. 5; No. 8, the chief of the caisson, is four yards in rear of the limber, and on its left; all face to the left, which is the direction in which the muzzle of the piece is pointing.

The chief of the piece is opposite the middle of the trail handspike, outside of, and near the left cannoneers. In actual firing, he places himself where he can best observe the effect of the shot.

[1] With the limber removed from the body, and carried to the rear, the trail resting upon the ground, and the trail handspike in the rings, as shown in Fig. 14. The piece is then prepared for firing or for *action*. The front in this case means in front of the muzzle.

Loading and firing.

636. The piece is supposed to be upon the drill ground, unlimbered, and ready for action; the limber is in position behind the piece, and facing towards it, the end of the pole six yards from the end of the trail handspike; and the detachment in front of and facing the piece.

Before commencing the individual instruction of the cannoneers, the instructor should enter into an explanation of the different kinds of field guns, their names, and the names and uses of the different parts of the gun and carriage before them. This done, he commences the instruction with the gunner, who commands and points the piece in action.

637. *Commanding and pointing.*—The gunner is responsible for the manner in which the numbers discharge their duty. He communicates the orders which he receives for the kind of ammunition to be fired; sending to No. 6 (who is charged with preparing the fuze) the time of flight or the distance for each round, when firing shells or spherical-case shot. He should, when the firing is slow, see that each fuze is properly prepared, and make such corrections as are necessary; for this purpose, he, as well as No. 6, should be provided with a fuze-gouge.

On receiving the command, or signal to commence firing, he gives the command *load;* takes hold of the handspike at the end with the right hand, and at the centre with the left; places his left knee against the left hand, bending over it, the right knee being slightly bent; looks over the top of the piece, and gives the direction. He then steps to the breech to give the elevation, which he does by placing the hausse (see No. 665) on its seat, taking hold of a handle of the elevating screw, drawing back his right foot, bending over his left knee, and sighting through the slit in the hausse.

When the piece is loaded and pointed, he removes the hausse, gives the command *ready*, and stepping clear of the wheel to that side where he can best observe the effect of his shot, gives the command *fire*. As soon as the piece has been fired, he causes it to be run up to its former place, if the recoil has made it necessary.

When the instructor, instead of giving the command *commence firing*, gives that of *load*, the gunner repeats it, and performs the same duties as before, except that he does not command *fire* until the firing is ordered to commence. After the command to *commence firing* is given, the action is continued by the gunners without further command from the instructor, until the firing is ordered to cease. When the commands are all given by the instructor, as in loading by detail, the gunner performs the same duties, but without repeating the commands.

638. *Sponging and ramming.*—Until the command *load*, No. 1 stands faced to the front, in line with the front of the wheels, holding the sponge about the middle of the staff in his right hand, and trailing it at an angle of 45°, sponge head up.

The instructor commands:

By detail — LOAD.

Three pauses and four motions.

First motion. At the command *load*, No. 1 faces to the left, steps obliquely to the right with his right foot, without moving his left, and at the same time brings the sponge to a perpendicular position by drawing his right hand up in line with the elbow. The sponge is grasped firmly in the hand, the rammer head held over the right toe, and the elbow kept close to the side.

Second motion. He steps obliquely to the left with his left foot, planting it about half way between the piece and the wheel, and opposite the muzzle, bringing the sponge at the same time across his body to the left, so that his right hand may be opposite the middle of the body, the sponge staff being inclined at an angle of 45° across the front of it.

Third motion. He takes a side step to the right of thirty inches with the right foot, and bending the right knee, brings the sponge to a horizontal position, extending the hands to the ends of the staff, the sponge head to the left, the back of his right hand up, and that of his left down, the sponge head pressing against the face of the piece.

Fourth motion. He inserts the sponge head, drops his left hand behind his thigh, shoulders square, feet equally turned out, straightens the right knee, bends the left, and, leaning over it, forces the sponge home.

Sponge.

Three pauses and four motions.

First motion. At the command *sponge*, No. 1 fixes his eye on the vent to see that it is closed, gives two turns to the sponge, pressing it at the same time against the bottom of the bore.

Second motion. He draws out the sponge, at the same time straightening his left knee and bending his right, seizes the staff near the sponge head with his left hand, back of the hand down, and places the sponge against the face of the piece.

Third motion. He turns the sponge by bringing his hands together in the middle of the staff, giving a cant with each hand, throwing the sponge head over, at the same time turning his wrists, so as to bring the staff to a horizontal position; he then extends his hands to the ends of the staff, the back of the left up, that of the right down.

During the whole time of sponging, No. 1 keeps his eye on the vent. If at any time it is not closed, he will discontinue the manœuvre, and command, *stop vent.*

Fourth motion. He introduces the rammer head into the muzzle as soon as No. 2 has inserted the charge, and joins his left hand to his right, casting his eyes to the front.

Ram.

Two pauses and three motions.

First motion. At the command *ram*, No. 1 rams home, throwing the weight of his body with the rammer; bending over his left knee, and passing his left arm, with the elbow slightly bent, and back of the hand up, in a horizontal position over the knee, until it points in the direction of the left trunnion; the right shoulder

thrown back, and the eyes cast towards the front until the cartridge is home.

Second motion. He jerks the sponge out with his right hand, allowing it to slide through the hand as far as the middle of the staff, when he grasps it firmly, and seizing it close to the rammer head with the left hand, back of the hand up, places the rammer hand against the face of the piece, straightens his left knee, and stands erect; eyes to his own front.

Third motion. He then draws the sponge close to his body, and immediately steps back outside the wheel, first with the right, then with the left foot; so that when the right foot is brought to it, the right hip may be on a line with the front of the wheel. In drawing the right foot to the left, he gives the sponge a cant with his left hand, at the same time quitting it, and brings the sponge to a perpendicular position in the right hand, the rammer head resting on the right toe.

Ready. At this command, which is given as soon as the piece is loaded, or the firing about to commence, No. 1 breaks well off to the left with his left foot, bending the left knee and straightening the right leg, drops the end of the sponge staff into the left hand, back of the hand down, and fixes his eyes on the muzzle. The heels should be parallel with the wheel, the body erect on the haunches, and the sponge and rammer held in both hands in a horizontal position, the sponge head to the left.

The piece having been fired, No. 1 rises on his right knee, and returns to his position as in the third motion of *ram.*

At the command *load,* he steps in and performs his duties in the same manner as before.

When the loading is not by detail, No. 1 goes through all his duties at the command *load,* returns to his position outside the wheel, as given in the third motion of *ram;* breaks off at the command *ready,* and at the firing of the gun rises, steps in, and performs his duties as before. This he continues until the command *cease firing* is given, at which command he resumes the position he had before the first command *load.* If the sponging has been com-

menced when the command *cease firing* is given, it is completed before No. 1 resumes his post.

In sponging and ramming, if the length of the piece requires it the sponge and rammer are to be pressed home in two motions, No. 1 extending his right hand to the end of the staff, as soon as it reaches the muzzle.

In sponging *howitzers*, No. 1 presses the sponge to the bottom of the chamber, which should be well sponged out; he wipes the bore by rubbing its whole surface, without allowing the sponge to turn in his hands.

639. *Loading.* — The instructor places No. 2 on the left of the piece, where he remains faced to the front until the command *load.* At this command, he faces to his right, and by two oblique steps, corresponding to those of No. 1, the first with his left foot, the second with his right, at the command *two*, he places himself near the muzzle of the piece. At the command *three*, he brings up his left foot to the side of the right, and faces to the right, bringing his hands together to receive the ammunition from No. 5; the cartridge in the right, the shot in the left hand. As soon as the sponge is withdrawn by No. 1, he faces to the left, and puts the ammunition into the muzzle, taking care that the seam of the cartridge does not come under the vent, and then steps back, commencing with his left foot, to his position outside the wheel, in the same manner that No. 1 does.

At the command *ready*, he breaks off well to the right with his right foot, bending the right knee, and straightening the left knee; the body erect on the haunches, the eyes fixed on the muzzle.

The piece having been fired, No. 2 raises on his left leg, remains facing the piece until he hears the command *load*, or the firing of the gun; then steps in, and performs his duty as before. At the command *cease firing*, he resumes his position outside the wheel, and faces to the front.

With the *howitzer*, No. 2 puts in the charge, so that the fuze may rest against the rammer head, and No. 1 rams it home very carefully.

640. *Serving the vent.*—The instructor places No. 3 on the right

of the piece, on a line with the knob of the cascable, and covering No. 1; he holds the priming wire in his right hand, thumb through the ring, the thumb stall on the left thumb, and the tube pouch fastened to his waist.

At the command *load* he steps to his left, wipes the vent field (or surface around the vent) with the thumbstall, which he then holds pressed upon the vent, keeping his elbow raised; his fingers on the left side of the piece, so as to allow the gunner to point over his thumb; the right hand on the tube pouch. When the piece is sponged, and the charge inserted by No. 2, he jumps to the end of the trail handspike, and seizing it with both hands, prepares to move it to the right or left, on a signal from the gunner, who taps the right of the trail for a movement to the left, and the left of it for a movement to the right. As soon as the piece is pointed, the gunner raises both hands as a signal to No. 3, who then resumes his post.

At the command *ready* he steps to the piece, pricks the cartridge, taking care not to move the charge, and covers the vent with his left hand as soon as the friction tube is inserted. At the command *fire* he steps to his right, clear of the right wheel, and at the firing of the gun, or at the command *load*, serves the vent as before.

No. 3 must keep the vent closed from the time the sponge enters the muzzle until the charge is inserted by No. 2.

641. *Firing.* — The instructor places No. 4 on the left of the piece, opposite No. 3, and covering No. 2; he is equipped with a tube pouch, and lanyard.

At the command *load*, No. 4 inserts the lanyard hook into the ring of a primer, and stands fast.

At the command *ready*, he steps in with the right foot, drops the tube in the vent, takes the lanyard in his right hand, moves to the rear so far as to keep the lanyard slack, but capable of being stretched, without altering his position, which should be outside the wheel, the left foot broken to the left and rear.

As soon as No. 3 is clear of the wheel after the command *fire* is given, No. 4 pulls the lanyard briskly and firmly, passing the hand, back up, in a downward direction to the rear, so as to keep

the lanyard hook from flying back in the direction of the face. Should the tube fail to explode the charge, the gunner immediately commands, *don't advance, the primer has failed.* Upon which No. 2 steps inside the wheel, close to the axletree, receives a priming-wire over the wheel from No. 3, and a prepared primer from No. 4, pricks, inserts the primer, and resumes his post. At the command *cease firing*, No. 4 secures his lanyard.

In the absence of No. 4, No. 3 discharges his duties; after pricking the cartridge, he prepares and inserts a friction tube, steps to his post, faces the vent, breaks to his rear with his left foot, and at the command *fire*, discharges the piece. He then resumes his post, and tends the vent as before.

642. *Serving Ammunition.* — The instructor stations No. 5 five yards in rear of the left wheel, and covering it, No. 7 in rear of and near the left limber wheel, and No. 6 in rear of the limber chest to issue ammunition. He is provided with a fuze-gouge, and prepares the shells or spherical-case shot, according to the distance or time ordered, before delivering them to No. 5.

To cut the fuze. — Place the projectile between the knees, fuze uppermost, and support it with the left hand. Holding the fuze-gouge in the right hand, place the left corner of its edge close to, and on the right of the graduated mark indicating the time desired; then cut away gradually until the composition is exposed for a length about equal to the width of the gouge. Care must be taken not to cut the fuzes more rapidly than the demand for shells or case shot requires.

At the command *load*, No. 5 runs to the ammunition chest, receives from No. 7 or No. 6 a single round, the shot in the right hand, the cartridge in his left; takes it to the piece and delivers it to No. 2; returns immediately for another round, and then halts at his post until the piece is fired. In firing shell or spherical-case, he exhibits the fuze to the gunner before delivering it to No. 2.

Ammunition pouches are worn by Nos. 5 and 7, hung from the left shoulder to the right side; the round is so placed in the pouch that the cartridge will be to the front. When it is brought up, No. 5 holds open the pouch, and No. 2 takes out the round with both

hands. In rapid firing with round shot and canister, Nos. 5 and 7 may alternate in delivering the charges. At the command *cease firing*, No. 5 carries the round back to No. 6. No. 6 should keep the lid of the ammunition chest closed as much as possible. At the command *cease firing*, he carefully replaces the ammunition in the chest, and secures the lid.

643. *Loading by detail.* — For the instruction of the cannoneers united for the service of the gun, the exercise is first conducted by detail, the instructor giving all the commands. His commands are: *Load by detail*—LOAD; TWO, THREE, FOUR: SPONGE; TWO, THREE, FOUR; RAM; TWO, THREE: READY; FIRE; CEASE FIRING.

When the men are sufficiently instructed to go through the manual, without detail, the commands of the instructor for that purpose, are: *load; commence firing; cease firing;* or simply, *commence firing*, and *cease firing*. After the command *commence firing*, the action is continued as laid down for loading without detail, until the command *cease firing* is given, which is repeated by the chief of the piece and the gunner.

Moving the piece by hand. Piece unlimbered.

644. *To the front.* — The cannoneers being at their posts, the instructor commands:

1. *By hand to the front.* 2. MARCH. 3. HALT.

At the first command, the gunner seizes the end of the handspike, and Nos. 1, 2, 3, and 4, the spokes of the wheels. No. 1 with his left hand; Nos. 2, 3, and 4, with both hands; No. 1 holds the sponge with his right hand, the staff resting upon his right shoulder, sponge head down. At the second command they move the piece forward, the gunner raising the trail until the command *halt* is given, when all resume their posts.

645. *To the rear.* — The instructor commands:

1. *By hand to the rear.* 2. MARCH. 3. HALT.

At the first command, the gunner, facing to the rear, seizes the handspike with his right hand; Nos. 1, 2, 3, and 4, seize the wheels

as before, except that No. 1, holding the sponge in his left hand, uses his right hand at the wheel. At the command *march*, they move the piece to the rear, the gunner raising the trail, until the command *halt* is given, when all resume their posts.

Changing posts.

646. In order to instruct the men in all the duties at the piece, the instructor causes them to change posts.

For this purpose he commands:

1. *Change posts.* 2. MARCH.

At the command *change posts*, the men on the right of the piece face to the rear; those who have equipments lay them down; No. 1 resting the sponge head on the nave of the wheel. At the command *march*, each man takes the place and equipments of the man in his front.

No. 1	takes the place of		No. 3.
No. 3	"	"	No. 8.
No. 8	"	"	No. 6.
No. 6	"	"	No. 7.
No. 7	"	"	No. 5.
No. 5	"	"	No. 4.
No. 4	"	"	No. 2.
No. 2	"	"	No. 1.

The gunner changes with one of the numbers, by special direction of the instructor.

647. *Equipments.*—The gunner, who is responsible for the equipments, either distributes them from the limber chest, or they may be hung on the neck of the cascable, and distributed by him to the proper numbers, at the command, *take equipments*, from the instructor. He receives them again at the command, *replace equipments*, making such disposition of them as may be directed.

Limbering.

648. *To the front.* — The instructor commands:

Limber to the front.

At this command, No. 1 steps up between the muzzle and the wheel, by the oblique steps indicated for loading; turns the staff, seizing it with the left hand, at the same time shifting his right, the back of the right up, that of the left down, and passes the sponge on its hook; rammer head to the rear, to No. 3, who receives the head, secures it against the stop, and keys it up. The piece is then brought about by the cannoneers, and the limber, inclining to the right, passes to its place in front of it, being drawn, when the horses are not attached, by Nos. 6 and 7, who take hold of the end of the pole for the purpose.

To bring the piece about, the gunner and No. 5 pass to the right of the handspike, and, facing towards the left, seize it, the gunner near the end, and No. 5 at the middle, and on his right, raise the trail and carry it round to the left; Nos. 1 and 2 bear down upon the muzzle, and Nos. 3 and 4, each using both hands, bring the wheels around; No. 3 turning the right wheel to the rear, and No. 4 the left wheel to the front. When the piece is brought about, the trail is lowered; Nos. 3 and 4 step within the wheels to avoid the limber; Nos. 1 and 2 remain at the muzzle, and the gunner and No. 5 step up between Nos. 3 and 4 and the trail, the gunner first taking out the handspike, and passing it to No. 4, by whom it is put up.

As soon as the limber is in front of the piece, the gunner commands, *halt, limber up;* upon which the limber halts, the gunner and No. 5 raise the trail by means of the handles, and, assisted by Nos. 3 and 4 at the wheels, and Nos. 1 and 2 at the muzzle, run the piece forward, and place the lunette upon the pintle; the gunner then puts in the key, and all take their posts; when necessary, Nos. 6 and 7 assist at the trail in bringing the piece about, and in limbering up.

649. *To the right* (or *left*). — The instructor commands:

Limber to the right (or *left*).

The trail is turned to the right (or left), and the piece limbered

up as before; the limber inclining to the right (or left), and taking its place by a right (or left) wheel.

650. *To the rear.* — The instructor commands:

Limber to the rear.

The limber inclines to the right, and takes its place by wheeling about to the left; the piece is then limbered up as before.

Posts of the cannoneers. Piece limbered.

651. Nos. 1 and 2 opposite the muzzle; Nos. 3 and 4 opposite the knob of the cascable; the gunner and No. 5 opposite the rear, and Nos. 6 and 7 opposite the front parts of the limber wheels; No. 8 is on the left, and opposite the limber chest of the caisson. All face to the front, which is now in the direction of the pole instead of the muzzle, and cover each other in lines one yard from the wheels; the even numbers on the right, the odd on the left. The chief of the piece is on the left, and, if not mounted, opposite the end of the pole; if mounted, he is near the leading driver, and on his left.

To form the detachment.

652. *To the front.* — The instructor commands:

Detachment — FRONT.

The gunner commands, *cannoneers, forward, march;* the even numbers move directly to the front; the odd numbers closing to the right upon them when clear of the piece. The gunner files then to the left, halts the detachment in front of the piece, and faces them to the front. No. 8 moves directly forward, and takes his place in the detachment.

653. *To the rear.* — The instructor commands:

Detachment — REAR.

The gunners command, *cannoneers, rear face — march.* At the command *march,* the odd numbers move directly to the rear, the even numbers closing to the right upon them after passing the

piece, the detachment is filed to the left at the proper distance, halted by the gunner opposite the piece and faced to the front, No. 8 taking his proper place in the detachment.

In forming the detachments in line, they are always, after halting, dressed to the right by the gunner.

Posts of the detachments at their pieces.

654. *In front.*—The detachment is in line facing to the front, two yards from the end of the pole or the leading horses.

In rear.—The centre of the detachment in two yards, behind the muzzle, and facing it.

On the right or left.—The detachment is in line opposite the axletree of the limber, and three yards from it. In *horse artillery*, it is in line with, and three yards from, the leading horses. In all cases it faces to the front.

Change of posts of detachments at their pieces.

655. *From front to rear.*—The detachments being in line, in front of their pieces, to post them in rear, the instructor commands:

Detachments—REAR.

The gunner commands, *cannoneers, rear face, march.* At the command *march*, Nos. 1, 2, 3, and 4 oblique sufficiently to the left, and Nos. 5, 6, 7, and 8 to the right, move along the sides of their piece; reunite as soon as they have passed it, and are halted at the proper distance, faced to the front, and aligned to the right by the gunner.

From rear to front.—The instructor commands:

Detachments—FRONT.

The gunner repeats the command, and adds *march.* At this command, the cannoneers oblique; Nos. 1, 2, 3 and 4 to the right, Nos. 5, 6, 7 and 8 to the left; pass their piece, reunite in front, and are halted and aligned to the right by the gunner.

From rear to right (or *left*).—The instructor commands:

Detachments—*right* (or *left*).

The gunner commands, *right* (or *left*) *oblique*—*march*, and afterwards *forward*, and *halt*, in time to bring the detachment to its post on the right or left. He then aligns it to the right.

In *horse artillery*, to change from front to rear, the gunners command, *left reverse*, MARCH; FORWARD; *left reverse*, MARCH; HALT. The *left reverse* is executed on the same principle as the *left about wheel* in cavalry tactics.

From rear to front. — The gunners command, *right oblique*, MARCH; FORWARD. *Left oblique, march;* FORWARD; HALT.

From rear to right (or *left*). — The gunners command, *right* (or *left*) *oblique;* MARCH; FORWARD; HALT.

From right (or *left*) *to rear.* — The gunners command, *right* (or *left*) *reverse;* MARCH; FORWARD; *right* (or *left*) *reverse*, MARCH; HALT.

If the piece is moving when the last change of post is ordered, the gunner halts, or slackens the pace until it passes, and then commands, *left* (or *right*) *oblique.* MARCH; FORWARD.

The commands of the instructor in all these cases are the same as in mounted artillery. The movements are executed in the same manner when the detachments are dismounted.

To post the cannoneers at the piece limbered.

656. The detachment being formed in line in front or rear, on the right or left, the instructor commands:

CANNONEERS, TO YOUR POSTS.

From the front.—The gunner passes the detachment to the right, and commands, *to your posts — march.* At this command, the cannoneers, Nos. 1 and 2, turning to the right, and opening out, file to their posts; halt at their proper places, and face to the front.

From the rear, right or left. — At the command *cannoneers to your posts*, the gunner, in each case, faces the detachment to the left, and marches the cannoneers by that flank to their posts.

Moving the piece by hand. Piece limbered.

657. *To the front.* — The instructor commands:

1. FORWARD. 2. MARCH. 3. HALT.

At the first command, Nos 6 and 7 seize the end of the pole with both hands, the gunner and No. 5, facing towards the pole, seize the splinter-bar with one hand, and the pole with the other. Nos. 3 and 4 seize the spokes of the hind wheels with both hands, and Nos. 1 and 2 apply both hands at the head of the carriage At the second command, all acting together, urge the piece forward until the command *halt* is given, when all resume their posts.

To the rear. — The instructor commands:

1. *Backward.* 2. MARCH. 3. HALT.

At the first command, all face to the rear; Nos. 6 and 7 seize the end of the pole with both hands; No. 5 and the gunner seize the spokes of the limber, and Nos. 1, 2, 3 and 4, those of the hind wheels. At the command *march,* all moving together, move the piece to the rear, Nos. 6 and 7 keeping it straight by the use of the pole. At the command *halt,* all resume their posts.

Unlimbering, and coming into action.

To the front. — The instructor commands:

Action — FRONT.

658. At this command, the gunner takes out the key, and assisted by No. 5, raises the trail from the pintle, and then commands *drive on,* upon which Nos. 6 and 7 reverse the limber, and proceed with it to the rear. Again reverse to the left, and halt so that the limber shall cover the piece, with the end of the pole six yards from the end of the trail handspike. At the same time that the limber moves off, the piece is brought about in all respects as in limbering to the front, except that the gunner and No. 5, without lowering the trail, carry it about, each by means of the handle on his own side. Nos. 6 and 7, when necessary, assist at the trail, after placing the limber in position.

As soon as the piece is brought about, and the trail lowered, No. 4 takes out the handspike and passes it to the gunner, who fixes it

in the trail. No. 1 takes out the sponge, No. 3 unkeying it, and No. 4 prepares his lanyard. All then take their posts as required when the piece is *unlimbered.*

To the right (or *left*).—The instructor commands:

ACTION *right* (or *left*).

659. The piece is unlimbered in the same manner as for *action front*, and placed in the required direction; the limber wheels to the left (or right), and takes its place in rear, by reversing to the left (or right).

To the rear.—The instructor commands:

1. *Fire to the rear.* 2. IN BATTERY.

660. At the command *in battery*, the piece is unlimbered as before; the trail immediately lowered, and the gun prepared for action; the limber moves directly forward at the command *drive on*, from the gunner, and takes its place by coming to the left about.

Movements with the Prolonge.

661. The piece being in battery, to fix the prolonge to fire retiring, the instructor commands:

FIX PROLONGE TO FIRE RETIRING.

At this command, the limber inclines to the right, wheels to the left about, and halts four yards from the trail. No. 5 uncoils the prolonge and passes the toggle to the gunner, who fixes it in the trail by passing it upwards through the lunette, whilst he attaches the other end to the limber by passing the ring over the pintle and keying it.

At the command *retire*, the cannoneers face about, and all march on the left of the piece, except Nos. 1 and 3. They keep the implements in their hands, and, at the command *halt*, face about, resume their posts, and go on with the firing.

Should the piece be loaded at the command *retire*, No. 3 puts in the priming wire. At the command *halt*, he takes it out again, and No. 1 rams home. If the command *load* be given when the piece

is in motion, No. 5 puts in the charge, and No. 2 serves vent, receiving from No. 3 the necessary implements for that purpose.

The piece being in action, to fix the prolonge to fire advancing, the instructor commands:

FIX PROLONGE TO FIRE ADVANCING.

At this command, the limber passes its piece on the right and halts when in front of it, Nos. 1 and 3 stepping within the wheels to avoid the limber. No. 5 uncoils the prolonge, carries it to the front, gives the toggle to No. 2, who puts it in the lunette of the axle-strap, whilst he places the ring over the pintle and keys it.

In advancing, the men retain their implements and march at their posts. At the command *halt*, No. 2 takes out the toggle and commands *drive on*, upon which the limber takes its place in rear, and the firing is renewed.

When the piece is limbered, to fix the prolonge to fire retiring or advancing, the same commands are given. The piece is unlimbered, and the prolonge attached as before.

To fix the prolonge passing a ditch, or for any other purpose, the command is, *fix prolonge*. The prolonge is then fixed to the trail as before.

In moving with the prolonge, the gunner attends the handspike, and in changes of direction, is careful to circulate the trail round in proper time to prevent the prolong being cut by the wheels. No. 7 clears the prolonge from the limber wheels, and Nos. 1 and 2 from the gun wheels. In wheeling about the limber first backs a little and then describes a small circle. In passing a ditch the gunner takes out the handspike.

In fixing the prolonge for any purpose, the caisson wheels or reverses, if necessary, so that the horses of the limber and caisson may face in the same direction.

To detach the prolonge from the limber and coil it up, the instructor commands

COIL PROLONGE.

At this command, the gunner takes out the toggle, and No. 5

takes off the ring and coils the prolonge, first passing the ring over the upper prolonge hook.

To coil the prolonge and limber to the rear, the instructor commands, *coil prolonge—limber to the rear.* The prolonge is detached and coiled as before, the piece is run towards the limber, which reins back on receiving the command *rein back* from the gunner, and is limbered up. To limber to the front, right, or left, the instructor commands, *coil prolonge—limber to the front, right, or left;* which is executed as already described, the gunner commanding *drive on,* as soon as the prolonge is detached.

Service of the gun with diminished numbers.

662. Disabled men are replaced as soon as possible by the highest numbers, or, if men are selected to replace them, the highest numbers will be reduced to fill the vacancies thus created. During action, Nos. 1 and 2 may occasionally change places and numbers; the duties of No. 1 are very fatiguing.

Service of the piece by two men.—The gunner commands, points, serves the vent, and fires; No. 1 sponges, loads, and serves ammunition.

Three men.—The gunner commands, points, serves the vent, and fires; No. 1 sponges; No. 2 loads and serves ammunition.

Four men. — The gunner commands and points; No. 1 sponges; No. 2 loads and serves ammunition; No. 3 serves the vent and fires.

Five men. — The gunner commands and points; No. 1 sponges; No. 2 loads; No. 3 serves the vent and fires; No. 4 serves ammunition.

Six men. — The gunner commands and points; No. 1 sponges; No. 2 loads; No. 3 serves the vent and fires; Nos. 4 and 5 serve ammunition.

Seven men. — The gunner commands and points; No. 1 sponges; No. 2 loads; No. 3 serves the vent, and attends to the trail; No. 4 fires; No. 6 is at the limber, serves ammunition to No. 5, and occasionally changes with him.

Eight men. — No. 7 assists No. 6; the other numbers as before.

Supply of ammunition when in action.

663. When it can be done without inconvenience, ammunition will be served direct from the rear chest of the caisson, No. 8 performing the duties prescribed for No. 6 at the limber chest. At convenient moments, the ammunition served out by No. 6 will be replaced from the rear caisson chest. If the ammunition chest on the limber of the piece is exhausted, the limber is replaced by that of the caisson, and the empty chest exchanged for the centre one of the caisson.

As a rule, the limber chests, and especially that of the piece, will be kept full at the expense of the others, so that in case of a sudden movement on the field, there shall always be a sufficient supply of ammunition at hand.

Pointing and Ranges.

664. *To point a piece,* is to place it in such a position that the shot may reach the object it is intended to strike. To do this, the axis of the trunnions, being horizontal, the line of metal, called also the natural line of sight, must be so directed as to pass through the object, and then the elevation given to the piece to throw the shot the required distance. The *direction* is given from the trail, and the elevation from the breech; the trail being moved to the right and left by a handspike, and the breech raised or depressed by an elevating screw.

The *axis of the piece* coincides with that of the cylinder of the bore.

The *line of sight* in pointing is the line of direction from the eye to the object. It lies in a vertical plane, passing through, or parallel to the axis of the piece.

The *angle of sight* is the angle which the line of sight makes with the axis of the piece.

The *natural line of sight* is the straight line passing through the highest points of the base ring, the swell of the muzzle, muzzle sight, or muzzle band.

The *natural angle of sight* is the angle which the *natural* line of sight makes with the axis of the piece.

The *dispart of a piece* is half the difference between the diameters of the base ring and swell of the muzzle, or the muzzle band.

By *range* is commonly meant the distance between the piece and the object which the ball is intended to strike; or, the first graze of the ball upon the horizontal plane on which the carriage stands. *Point-blank* range is the distance between the piece and the point-blank. *Extreme range* is the distance between the piece and the point where the ball finally rests.

665. *Theory of pointing.*—The *point-blank* is the second point of intersection of the trajectory or curve described by the projectile in its flight with the line of sight. As the angle of sight is increased, the projectile is thrown farther above the line of sight, and the trajectory and point-blank distance becomes more extended.

The point-blank range increases with the *velocity*, the *diameter*, and the *density* of the ball.

A piece is said to be aimed *point-blank* when the line of metal, which is the natural line of sight, is directed upon the object. This must be the case when the object is at point-blank distance. When at a greater distance the pendulum-hausse, or the tangent scale, is raised upon the breech until the sight is at the height which the degree of elevation for the distance may require. An *artificial* line of sight, and an *artificial* point-blank are thus obtained, and the piece is aimed as before.

The different lines, angles, etc., which are to be taken into account in pointing, will be understood by the following figure:

A B, axis of the piece. B E I F, trajectory, or curve described by the ball. C F, line of sight. C D A, angle of sight or dispart. The ball being thrown in the direction of the axis A B, is acted upon by the force of gravity, and begins to fall at once below that line at the rate of $16\frac{1}{2}$ feet for one second, $64\frac{1}{3}$ for two, $144\frac{3}{4}$ for three, and so on in proportion to the time. It cuts the line of sight

at E, a short distance from the muzzle of the piece, and descending, again cuts at the point F. This second point of intersection is the point-blank.

Pendulum-hausse. — The instrument at present in most general use in pointing field guns at objects beyond the natural point-blank, is called a *pendulum-hausse*, of which the component parts are denominated the *scale*, the *slider*, and the *seat*. The *scale* is made of sheet brass; at the lower end is a brass bulb filled with lead. The *slider* is of thin brass, and is retained in any desirable position on the scale by means of a brass set screw with a milled head. The scale is passed through a slit in a piece of steel, with which it is connected by a brass screw, forming a pivot on which the scale can vibrate laterally; this slit is made long enough to allow the scale to take a vertical position in any ordinary cases of inequality of the ground on which the wheels of the carriage may rest. The ends of this piece of steel form two journals, by means of which the scale is supported on the *seat* attached to the piece. The seat is of iron, and is fastened to the base of the breech by three screws, in such manner that the centres of the two journal notches shall be at a distance from the axis equal to the radius of the base ring.

A *muzzle-sight* of iron is screwed into the swell of the muzzle of *guns*, or into the middle of the muzzle ring of *howitzers*. The height of the sight is equal to the *dispart* of the piece, so that a line from the *top* of the muzzle sight to the *pivot* of the scale is parallel to the axis of the piece. Consequently the vertical plane of sight passing through the centre line of the scale and the top of the muzzle sight, will be also parallel to the axis in any position of the piece; the scale will therefore always indicate the angle which the line of sight makes with the axis.

The hausse, when not in use, is carried by the gunner in a leather pouch, suspended by a shoulder-strap.

On pointing.

666. As it is impossible to point a piece correctly without knowing the *distance* of the object, artillery men should be frequently practised in estimating distances by the eye alone, and rectifying

the estimate afterwards, either by pacing the distance, or by actual measurement with a tape-line or chain, until they acquire the habit of estimating them correctly.

Shells are intended to burst *in* the object aimed at; *spherical-case shot* are intended to burst from fifty to seventy-five yards short of it.

Shell or spherical-case firing, for long ranges, is less accurate than that of solid shot.

At high elevations, a solid shot will range farther than a shell or spherical-case shot of the same diameter fired with an equal charge. But at low elevations, the shell or spherical-case will have a greater initial velocity, and a longer range. If, however, the charges are proportioned to the weights of the projectiles, the solid shot will in all cases have the longest range.

The velocity or range of a shot is not affected in any appreciable degree by checking the recoil of the carriage, by using a tight wad, or by different degrees of ramming.

The principal causes which disturb the true flight of the projectile, are as follows:

1st. If the wheels of the carriage are not upon the same horizontal plane, the projectile will deviate towards the *lowest* side of the carriage.

2d. If the direction of the wind is across the line of fire, deviations in the flight of the projectile will be occasioned, and in proportion to the strength of the wind, the angle its direction makes with the line of fire, and the velocity of the projectile.

3d. If the centre of gravity of the projectile be not coincident with the centre of figure, the projectile will deviate towards the *heaviest side*, that is, in the same direction that the centre of gravity of the projectile, while resting in the piece, lies with regard to the centre of figure. Therefore, if a shot be placed in the piece so that its centre of gravity is to the *right* of the centre of the ball, the shot will deviate to the *right;* and *vice versâ*. If the centre of gravity be above the centre of figure, range will be *increased;* if below, it will be diminished.

Solid shot should be used from 350 yards upwards; the use of canister should begin at 350 yards, and the rapidity of the fire in-

creases as the range diminishes. In emergencies, double charges of canister may be used at 150 or 160 yards, with a single cartridge.

Spherical-case should not, as a general rule, be used for a less range than 500 yards; and neither spherical-case nor shells should be fired at rapidly advancing bodies, as, for instance, cavalry charging.

The fire of spherical-case and of shells on bodies of cavalry in line or column, and in position, is often very effective. To the destructive effects of the projectile are added the confusion and disorder occasioned amongst the horses by the noise of their explosion; but neither shells nor spherical-case should be fired so rapidly as solid shot.

In case of necessity, solid shot may be fired from howitzers.

SCHOOL OF THE BATTERY.

Composition of the Battery, and the officers and men necessary to man it.

667. The battery is composed of four, six, or eight pieces; six pieces will be supposed. It is divided into three sections of two pieces each, denominated the *right*, *centre*, and *left* sections, according to their position in line. The battery is commanded by a captain; each section is commanded by a lieutenant, called the *chief of section*, and an additional lieutenant is necessary to command the line of caissons. Each piece is commanded by a sergeant, as *chief of the piece*, while the gunner and chief of caisson are corporals. The officers and men necessary to man the battery constitute a *company*, which is divided into as many *platoons* as there are pieces. Each platoon is composed of the drivers and cannoneers of a single piece, and is commanded by the chief of the piece; the cannoneers of a piece, as already stated in the school of the

piece, constitute the *gun detachment.* When the drivers and cannoneers form together, the drivers form on the left.

Two platoons constitute a *section.*

In addition to the platoons, there should be a *first* (or *orderly*) *sergeant* attached to the company; a *quartermaster sergeant;* two *buglers* or *trumpeters;* one *guidon;* and as many artificers as may be necessary to keep the guns, carriages, harness, etc., in order.

When the company is formed, the platoons form in line in the order of their pieces.

Posts of the officers, non-commissioned officers, etc.

668. The captain commanding goes where his presence may be necessary, or his commands best heard. His position, in the *order in line,* is four yards in front of the centre of the company; in the *order in column,* or when the company *is faced by a flank,* four yards outside the flank in the first case, and from the company in the second, and opposite the centre.

The lieutenants commanding sections *in line* or *in column of sections,* are two yards in front of the centres of their respective sections; in columns *of platoons* or *of detachments,* or when faced by *a flank,* they are two yards outside the marching flank, and opposite the centres of their respective sections; except that when faced by *a flank,* the chief of the leading section takes his place at the side of the leading file.

The chief of the line of caissons, is four yards in rear of the centre of the company when it is *in line;* when it is *in column* or faced by *a flank,* he is four yards outside the pivot flank, and opposite the centre of the company.

The chiefs of pieces, when the company is *in line, in column of sections,* or faced by *a flank,* are on the right of the gun detachments of their respective platoons, in the front rank. In column *of platoons,* or *of detachments,* they are one yard in front of the centre of their platoons or of their gun detachments.

The gunners, when the company is *in line,* or in column *of sections,* are one yard behind the right files of their respective gun detachments. In column *of platoons,* or *detachments,* they are on

the right of the gun detachments. When faced by *a flank*, they face with the company, and retain their relative positions.

The chiefs of cannons are in their places in the ranks as No. 8 of the gun detachments, or as the front rank men on the left of their platoons.

The first sergeant, when the company is *in line*, is on the right of the front rank, and one yard from it; when it is *in column*, he is on the marching flank, one yard outside the section, platoon, or detachment nearest him when in line. When the company faces by *a flank*, he faces with it.

The quartermaster sergeant is on the left of the company, and occupies positions corresponding to those of the first sergeant on the right.

When the company is *in line*, the buglers are on the right of the first sergeants, in one rank, and two yards from line; *in column* they are six yards in front or rear of the subdivision next them in line, according as that subdivision forms the head or rear of the column. When the company is faced by *a flank*, they face also.

The artificers occupy positions on the left of the company, corresponding to those of the musicians on the right.

The guidon forms with the musicians, or takes such position as the captain prescribes.

Manning the Battery.

699. The gun detachments and teams, having been probably tolled off, are marched to the battery, or park, with the teams in front.

The chiefs of pieces and caissons, when mounted, march with the teams; when the teams reach the battery, they are hitched by the drivers.

In forming the detachments they are formed in line, touching each other, and in positions corresponding to the positions of their pieces in the battery. The chiefs of section, etc., are at their posts as directed for the company in line.

The detachments are marched to the battery, either in column or in line, as circumstances may require.

Each detachment is halted by its gunner when opposite its piece, and wheeled into line.

If approaching from the front or rear, the detachments are formed in line facing the battery, in the same order as their pieces, and the captain commands:

DETACHMENTS, OPPOSITE YOUR PIECES.

At this command, each detachment is wheeled or faced in the proper direction by its gunner, marched opposite its piece, and formed in line.

The captain, after all the detachments have been halted in front or rear of their pieces, commands:

CANNONEERS, TO YOUR POSTS.

At this command the gunners face their detachments, and all take their posts, as directed in No. 656.

The position of the detachment in *horse artillery*, is habitually two paces in rear of the muzzle of the piece, but its position may be changed by the means laid down in No. 655.

During the manœuvres of mounted artillery, the cannoneers are seated on the ammunition chests as follows: The gunner, and Nos. 5 and 6, on the limber chest of the piece, the gunner on the right, and No. 5 on the left; Nos. 1, 2, and 7 on the limber chest of the caisson, No. 2 on the right, and No. 1 on the left; Nos. 3, 4, and 8 on the middle chest of the caisson, No. 4 on the right, and No. 3 on the left.

When circumstances require it, Nos. 6 and 7 may be directed to mount the rear chest of the caisson. They sit with their backs to the front, No. 6 on the right.

To mount and dismount the Cannoneers.

670. *To mount.*—The captain halts the battery, if not already at a halt, and commands:

1. *Cannoneers, prepare to mount.* 2. MOUNT.

At the first command, the cannoneers run to their respective places, and stand facing the chests which they are to mount, the

gunner and No. 5 in rear of the gun limber; No. 6 on the right of the gunner; Nos. 1 and 2 in rear of the caisson limber; No. 7 on the left of No. 1; Nos. 3 and 4 in front of the middle chest of the caisson; No. 8 on the right of No. 3. The gunner and Nos. 2 and 3 seize the handles with the right hand, and step upon the stocks with the left foot, and Nos. 5, 1, and 4, seize the handles with the left hand, and step upon the stocks with the right foot.

At the command *mount*, the gunner, and Nos. 1, 2, 3, 4, and 5, spring into their seats. The gunner, and Nos. 5, 1, and 2, seat themselves in their places with their backs to the front, and immediately face about, by throwing their legs outward over the handles.

No. 8 then springs into his seat in the same manner as No. 3; Nos. 6 and 7 step in rear of their chests, place their hands upon them, step upon the stocks with their nearest feet, spring up, step over the boxes and take their seats, placing their hands on the shoulders of the men already seated in order to steady themselves.

When the command *cannoneers, mount*, is given by itself, the men run to their places and spring into their seats at once, No. 8 taking his seat before No. 3.

671. *To dismount.*—The captain halts the carriages as before, and commands:

1. *Cannoneers, prepare to dismount.* 2. DISMOUNT.

At the first command, the cannoneers stand up in their places, except the gunner and No. 5, who face about. At the second command, the whole jump off and run to their posts.

When the command *cannoneers, dismount*, is given by itself, the men jump from their chests in the same manner.

The cannoneers always dismount at the command, *action front, right* (or *left*). They also dismount at the command *in battery*, as soon as the carriage on which they are mounted halts.

In *horse artillery*, the gunner dismounts the cannoneers when the command *action front, right* or *left*, or *in battery*, is given, and all move to their posts in double quick time, and unlimber as rapidly as possible.

The object of mounting the cannoneers on the ammunition chests, is generally to enable the battery to make quick movements.

To unpark.

672. Everything being prepared for manœuvring, if the captain wishes to unpark by the right, he commands:

1. *By piece—from the right—front into column.* 2. MARCH.

At the command *march*, the right piece, followed by its caisson, marches direct to the front, and the captain indicates the direction it should take. The other pieces and caissons follow the movement of the right piece, each so regulating its march by that which precedes it, as to march in the same direction, and two yards behind. Each chief of section directs the march of his carriages, which are so conducted by their chiefs as to enter the column by the most simple movement. The column of pieces is thus formed with a distance of two yards between the carriages; and in horse artillery with the same distance between the carriages and detachments.

The captain goes wherever his duty may require, but generally remains on the left flank, opposite the centre of the column.

The chief of the leading section places himself near the chief of the leading piece, and on his left; the other chiefs of sections four yards from the left flank, abreast the centres of their respective sections.

The chief of the line of caissons is in rear of the chief of the centre section.

Each chief of piece and caisson, when mounted, is near his leading driver, on the left.

The trumpeter is near the captain.

When the battery is parked with the caissons in front, the captain causes it to unpark by the right by the same commands; the movements being executed in the same manner.

The battery may be unparked by the left according to the same principles and by inverse means.

The column of pieces is not to be considered a column of manœuvre. It will be changed into a column of sections as soon as

the nature of the ground will permit. But the exigencies of service sometimes require that formations into line and battery should be made directly from the column of pieces. In such cases, the principles and commands laid down for similar formations from the column of sections, will govern. In the formations to the right or left, the pieces must close up, and wheel successively when opposite their proper places.

To Halt.

To halt the battery, when marching in column of pieces, the captain commands:

1. *Column.* 2. HALT.

At the second command, repeated by the chiefs of sections, all the carriages are immediately halted.

Change of gait.

673. The changes of gait, in column of pieces, are executed by the following commands from the captain:

To pass from the walk to a trot.

1. *Trot.* 2. MARCH.

To pass from a trot to a walk.

1. *Walk.* 2. MARCH.

At the first command, repeated by the chiefs of sections, all the drivers and others on horseback prepare to change the gait; and at the second, repeated in like manner, they pass at once to the gait indicated by the first command.

To form sections.

674. When the battery is marching at a walk in column of pieces, to form sections at the same gait by gaining ground to the left, the captain commands:

1. *Form sections—left oblique.* 2. MARCH. 3. *Guide right.*

(Fig. 154.) The chief of the leading section repeats the commands, *Form section—left oblique—march; guide right,* in suc-

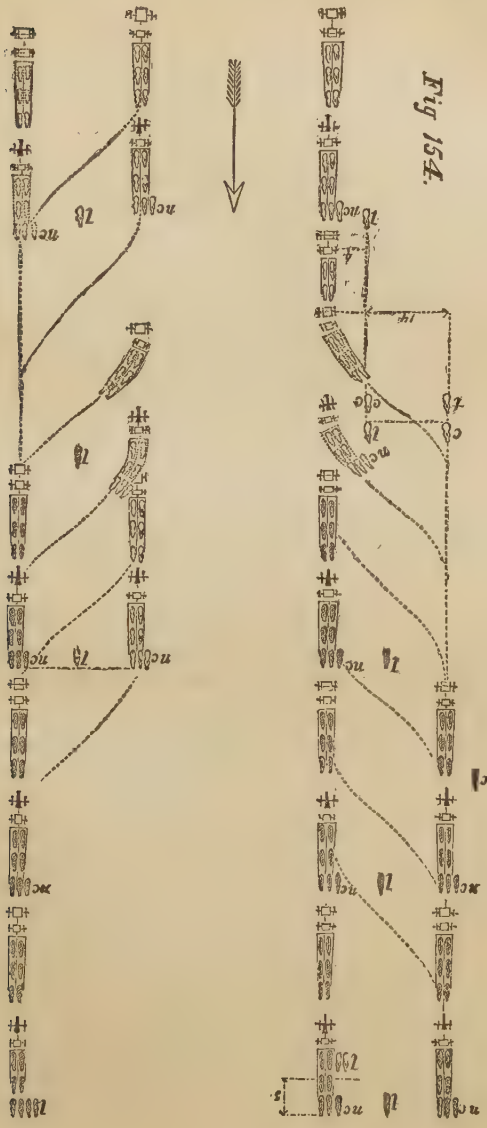


Fig. 154.

cession after the captain. At the command *march*, the two first carriages, piece and caisson, continue to march, and halt when they have advanced five yards. The two following gain their interval of fourteen yards by obliquing to the left, and place themselves abreast and parallel with the other two.

The other sections continue to march in column of pieces, and are formed successively by their chiefs; each commanding, *form section — left oblique*, in time to command *march*, when the leading carriage of his section has arrived within five yards of its distance. The chief of section then commands, *guide right*.

When the column of pieces is marching at a trot, the formation is executed according to the same principles and by the same commands. But the leading carriages, instead of advancing five yards and halting as before, pass to a walk as soon as the command *march* is repeated by the chief of section. The other sections continue to march at a trot, and execute the movement at that gait; the two leading carriages of each section passing to a walk at the command *march*, which must be given when they have closed to their proper distance.

When the column of pieces is at a halt, the formation is executed as prescribed for the column at a walk. In this case the carriages all move at the command *march*, and the leading ones halt after advancing five yards.

When the column of pieces is marching at a walk, to form sections at a trot gaining ground to the left, the captain commands:

1. *Form sections—left oblique—trot.* 2. MARCH. 3. *Guide right.*

The chief of the leading section repeats the commands, *form section — left oblique — trot; march; guide right*, in succession, after the captain. At the command *march*, the two leading carriages continue to march in the original direction at a walk. The two following oblique to the left, gain their interval at a trot, and resume the walk when opposite the leading carriages.

At the first command, the chiefs of the other sections command *trot;* and at the second, which they repeat, their sections commence the trot.

The chiefs of the second and third sections command, *form section—left oblique*, in time to command *march*, when the leading carriage of each section has nearly gained its distance. The leading carriage then resumes the walk, and the chief of section commands, *guide right.*

The chiefs of sections superintend their carriages, and take the posts assigned them in the order in column as soon as their sections are formed.

Sections are formed by gaining ground to the right according to the same principles and by inverse means.

The battery being in column of pieces to form the caissons on the flank.

675. When the battery is in column of pieces with the caissons in rear, to form the pieces and caissons into separate columns, as in the flank march of a battery in line, the captain commands:

1. *Caissons left* (or *Caissons left—trot*). 2. MARCH. 3. *Guide right.*

These commands are repeated by the chiefs of sections, the caissons oblique at once to the left, gain the interval of fourteen yards, and place themselves opposite their pieces; the pieces closing upon each other at the same time to the usual distance. The gait is regulated as in the formation of sections; and when the movement is performed at a walk, the leading carriage halts after advancing its own length.

The chiefs of sections take their places as in column of sections.

The caissons are formed on the right according to the same principles and by inverse means.

When the pieces are in rear, they are formed on the right or left of their caissons in the same manner and by corresponding commands.

To march in column.

676. The battery being in column at a halt, to advance, the captain commands:

1. *Column—forward.* 2. MARCH. 3. *Guide left* (or *right*).

The commands *forward — march; guide left* (or *right*), are repeated by the chiefs of sections. At the command *march*, all the carriages advance, the guide maintains the direction, and the carriages, as well as the detachments of horse cannoneers, preserve their intervals and distances.

To march by a flank.

677. The battery being in column, in march or at a halt, to gain ground to the left, the captain commands:

1. *Column—by the left flank.* 2. MARCH.

(Fig. 155.) The commands, *by the left flank — march*, are repeated by the chiefs of sections. At the command *march*, each carriage wheels at once to the left.

When the wheel is nearly completed, the captain commands:

1. FORWARD. 2. *Guide right.*

These commands are repeated by the chiefs of sections. At the command *forward*, all the carriages march direct to the front.

The line is regularly established, and the carriages aligned in each rank, with their distances of two, and intervals of fourteen yards. The chiefs of sections take their places between the leading carriages as in line.

To cause the battery to resume its original direction, the captain commands:

1. *Battery — by the right flank.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

The commands, *by the right flank — march; forward; guide left*, are repeated and executed according to the principles before described.

After the flank march, to march the battery in a direction opposite to the original one, the captain commands:

1. *Battery — by the left flank.* 2. MARCH. 3. FORWARD. 4. *Guide right.*

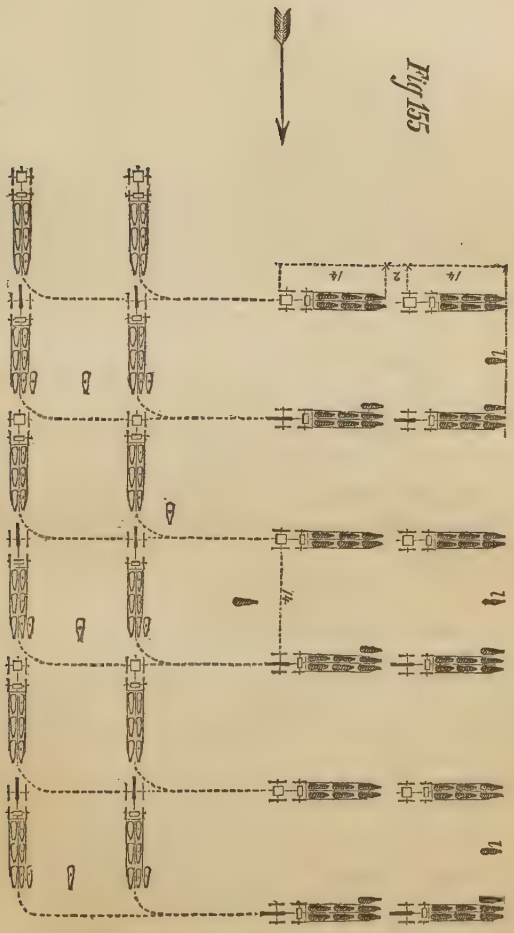


Fig. 65

In *horse artillery* the flank march is executed according to the same principles, and by the same commands. The line formed by the flank movement is established, and the carriages aligned in each rank, with distances of five and intervals of fourteen or twenty-one yards, according to the relative position of the pieces and caissons. The detachments wheel in the same direction as their pieces; and, after following them during a part of the movement, place themselves by their sides, two yards from the wheels, with the heads of their leading horses on a line with the axle-trees of the limbers. In marching by the left flank they are on the left of their pieces, and the reverse when marching by the right. When sufficient ground has been gained to the flank, and the battery resumes its formation in column by marching in the original direction, the detachments wheel in the same direction as their pieces and place themselves in their rear. But when the march in column is in the opposite direction, they resume their places by allowing their pieces to pass them and then falling in their rear.

The flank march, to gain ground to the right, is executed according to the same principles and by inverse means.

In each case the captain and the chief of the line of caissons change their direction to the left or right, and conform to the movements of the battery.

Oblique march.

678. The battery being in column, in march or at a halt, to cause it to march obliquely to gain ground to the front and left, the captain commands:

1. *Column — left oblique.* 2. MARCH. 3. *Guide right.*

The chiefs of sections repeat the commands, *left oblique; march; guide right.* At the command *march*, all the carriages oblique at once to the left, and march direct to the front in the new direction; moving in parallel lines, dressing by the right, and preserving their intervals from that flank.

In obliquing, the heads of the horses in each rank are on a line parallel to the original front of the column. The interval between the carriages is fourteen yards, measured parallel to the front; and

only ten if measured perpendicularly to the oblique direction. Each carriage of the right file marches in the prolongation of the left carriage of the rank which precedes its own, and at a distance of nine yards.

The officers conform to the movement and preserve their relative positions.

To resume the original direction the captain commands:

FORWARD.

This command is repeated by the chiefs of sections, and the carriages resume the original direction by obliquing to the right.

If the captain wishes to halt the column for the purpose of rectifying its alignments, intervals, or obliquity, he commands:

1. *Column.* 2. HALT.

And to resume the march in the oblique direction:

1. *Column.* 2. MARCH. 3. *Guide right.*

The commands *halt; march; guide right,* are repeated by the chiefs of sections.

The right oblique is executed according to the same principles and by inverse means.

Passage of carriages in column.

679. When the battery is marching in column at a walk, to change the relative positions of the front and rear ranks, without altering the gait, the captain commands:

1. *Pieces pass your caissons* (or *caissons pass your pieces*).
2. MARCH.

These commands are repeated by the chiefs of sections; and at the command *march,* the leading carriages of each section halt. Those of the rear rank execute the passage without changing the gait, and halt as soon as they have reached their positions in front.

To continue the march without halting the carriages of the rear rank, the captain commands *forward*, when the passage is nearly completed, and the command is repeated by the chiefs of sections.

When the column is marching at a trot, the passage is executed according to the same principles and by the same commands, except that the carriages of the front rank move at a walk instead of halting at the command *march*. The carriages of the rear rank execute the passage at a trot, and then change the gait to a walk.

When the column is at a halt, the passage is executed according to the same principles and by the same commands. If the captain wishes to put the column in march immediately after the movement, he commands *forward*, when the passage is about being completed, and then *guide left* (or *right*). These commands are repeated by the chiefs of sections.

When the column is marching at a walk, to execute the passage at a trot, the captain commands:

1. *Pieces pass your caissons — trot*, (or *caissons pass your pieces — trot*). 2. MARCH.

These commands are repeated by the chiefs of sections. At the command *march*, the carriages of the front rank in each section continue to march at a walk. Those of the rear rank execute the passage at a trot, and resume the walk as soon as the passage is completed.

About in column.

680. The battery being in column, in march or at a halt, to face it to the rear, the captain commands:

1. *Pieces and caissons — left about.* 2. MARCH.

These commands are repeated by the chiefs of sections; and at the second all the carriages execute the about. When the movement is about being completed, the captain commands, *column — halt;* or *forward—guide right* (or *left;*) the commands, *halt*, or *forward—guide right* (or *left*), are repeated by the chiefs of sections.

Countermarch in column.

681. The battery being in column, in march or at a halt, to execute the countermarch in each section, the captain commands:

1. *Countermarch.* 2. MARCH.

These commands are repeated by the chiefs of sections, and at the second each piece and its caisson execute the countermarch. When the movement is about being completed the captain commands, *column — halt;* or *forward; guide right* (or *left.*)

These commands are repeated as in the preceding paragraph.

To change direction in column.

682. The battery being in column, in march or at a halt, to cause it to change direction to the left, the captain commands:

Head of column to the left.

The chief of the leading section commands, *left wheel* — MARCH; and afterwards, *forward.* At the command *march,* the pivot carriage executes the wheel without changing the gait. The carriage on the wheeling flank wheels in such a manner as to conform to its movement; increasing the gait, and preserving the intervals. At the command *forward,* the pivot carriage moves direct to the front, and the other resumes its original gait after completing the wheel and arriving upon the same line. The carriages of the rear rank preserve their distance and follow those of the front rank.

Each of the other sections, on arriving at the point where the first wheeled, executes the same movement, and by the same commands from its chief.

Each chief of section must give the command *left wheel* in time to command *march,* when the heads of his leaders are three yards from the wheeling point. And the command *forward* must be given, as soon as the leading pivot carriage has entered the new direction.

The change of direction to the right is executed according to the same principles, and by inverse means.

To diminish the front of a column on the march.

683. The battery marching at a walk in column of sections, to form column of pieces from the right, at that gait, the captain commands:

1. *By the right — break sections.* 2. MARCH.

(Fig. 154.) The chief of the leading section commands, successively, after the captain, *by the right — break section; march.* At the command *march,* the two right carriages of the leading sections continue to march at a walk, and all the other carriages halt. The left carriages of the leading section remain halted, until the leaders of the leading carriage are passed by the wheel horses of the rear carriage on the right. They then oblique to the right, take their places in column, and follow the two leading carriages. The other sections are broken in succession by the same commands from their chiefs; the command *march* being given when the wheel horses of the left carriages of the next preceding section enter the right oblique.

When the column is marching at a trot, the column of pieces is formed according to the same principles and by the same commands. But in this case the carriages which halted before slacken the gait to a walk, and resume the trot to oblique and enter the column.

When the column is at a halt, the movement is executed as prescribed for a column marching at a walk; the two right carriages of the leading section moving forward at a walk at the command *march.*

The battery marching at a walk in column of sections, to form column of pieces from the right at a trot, the captain commands:

1. *By the right — break sections — trot.* 2. MARCH.

The chief of the leading section commands successively, after the captain, *by the right — break section — trot; march;* and the right carriages of the leading section move forward at a moderate trot. The left carriages of the same section commence the trot on obliquing to enter the column.

The other sections are broken successively by the same commands from their chiefs; and the carriages are regulated by each other, as in breaking sections at a walk.

This formation is executed from the left, according to the same principles and by inverse means.

In column with the caissons on the flank, to replace them in front or rear.

684. The battery being in column with the caissons on the flank, to re-establish them in rear of their pieces, the captain commands:

1. *Caissons rear* (or *caissons rear — trot*). 2. MARCH.

Each chief of section repeats the commands in time to command *march*, when the leading piece of his section is to commence the movement. The piece at the head of the column moves forward with the required gait, and its caisson places itself in rear by an oblique. The other pieces move forward in succession, and are followed by their caissons in like manner.

All the carriages preserve the usual distance in column.

This movement is performed with the different gaits, and according to the principles prescribed for breaking sections.

The formation for placing the caissons in front is executed by the commands, *caissons front* (or *caissons front — trot*); *march*, the caissons obliquing successively in front of their pieces.

To pass from the order in column to the order in line, and the reverse.

In all formations in line or column, the movements are the same whether the pieces or caissons lead.

Forward into line.

685. The battery being in column at a halt, to form it into line on the head of the column, gaining ground to the left, the captain commands:

1. *Forward into line — left oblique.* 2. MARCH. 3. *Guide right.* 4. FRONT.

(Fig. 156.) At the first command, the chief of the leading section commands, *section—forward*, and those of the other sections, *section — left oblique.* At the command *march*, repeated by the chiefs of sections, the leading section moves to the front, and its chief repeats the command for the guide. After advancing eighteen yards, or for horse artillery twenty-two, he commands, *section—halt; right — dress.*

Each of the other chiefs of sections repeats the command for the guide, and conducts his section by a left oblique, until by the direct march it may gain its proper interval from the section immediately on its right. He then commands, *forward*, and when within four yards of the line, *section — halt; right — dress.*

When the battery is aligned, the captain commands, *front.*

The movement is executed on the opposite flank, according to the same principles, and by inverse means.

In this case the commands are, *forward into line — right oblique —march; guide left — front.*

The formation forward into line by a right or left oblique, executed in a similar manner when the column is in march. In this case the chief of the leading section gives no command except for the guide, until he has advanced the distance before prescribed. He then halts his section as before.

To form line faced to the rear.

686. The battery being in column at a halt, to form it into line faced to the rear, on the head of the column gaining ground to the left, the captain commands:

1. *Into line faced to the rear — left oblique.* 2. MARCH. 3. *Guide right.* 4. FRONT.

(Fig. 157.) At the first command, the chief of the leading section commands, *section — forward;* and those of the other sections, *section — left oblique.* At the command *march*, repeated by the chiefs of sections, the movement is executed as in No. 685, with the exception of the alignment. When the leading section has advanced 18 yards, or for horse artillery 22, it is halted by its chief until the

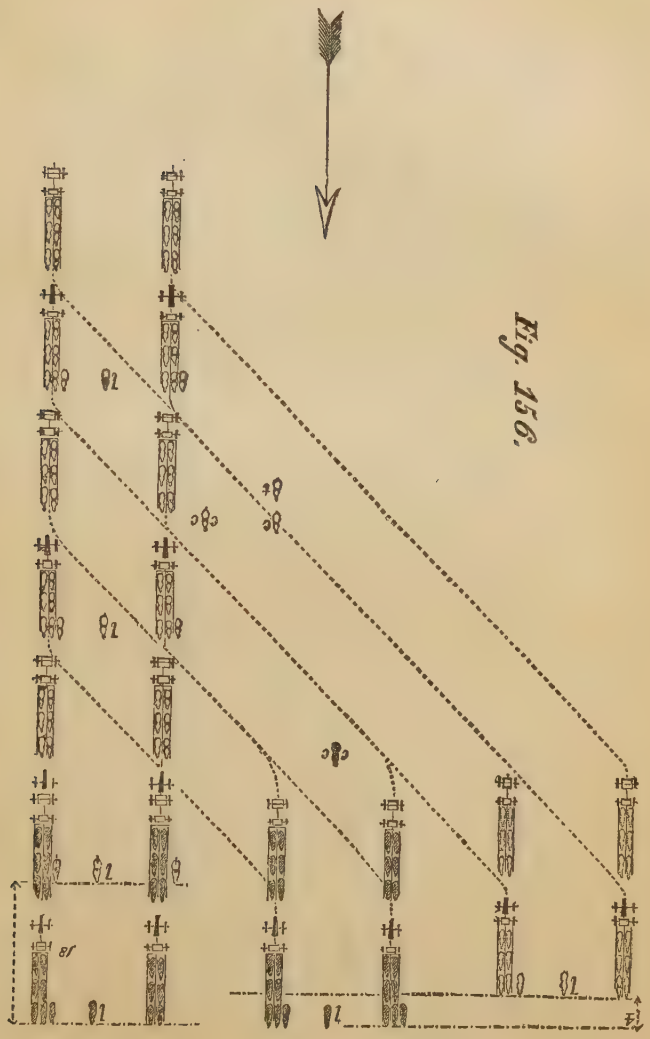


Fig 156.

Fig 157

centre section arrives upon the same line. He then commands, *countermarch — march;* and when the countermarch is nearly completed, *section — halt; left — dress.*

The centre section is halted upon the line, in like manner, until the left section comes up, and is then countermarched and aligned by the same commands.

When the left section arrives upon the line, it is countermarched before halting, and then aligned like the rest.

When the centre and left sections are countermarched, the commands, *halt; left dress,* should be given if possible, when they are four yards in rear of the line on which the leading section is established.

When the battery is aligned the captain commands *front.*

The movement is executed on the opposite flank according to the same principles and by inverse means.

The formation into line faced to the rear by a right or left oblique, is executed in a similar manner when the column is in march. In this case, as the leading section is already in motion, its chief only repeats the command for the guide as in No. 685.

To form line to the right or left.

687. The battery being in column, in march or at a halt, to form it into line to the left, the captain commands:

1. *Left into line wheel.* 2. MARCH. 3. *Battery*—HALT. 4. *Left* —DRESS. 5. FRONT.

(Fig. 158.) At the first command the chiefs of sections command, *section left wheel;* and at the second, which they repeat, all the sections wheel to the left. Each chief of sections commands, *forward; guide left,* as soon as his leading pivot carriage has taken the new direction.

When the rear carriages have completed the wheel, and the sections are in line, the captain commands, *battery; halt; left—dress*

The commands, *halt; left — dress,* are repeated by the chiefs of sections, and when the alignment is completed the captain commands *front.*

The battery is formed into line to the right according to the same principles and by inverse means.

To form line on the right or left.

688. The battery marching in column to form it into line on the right, the captain commands:

1. *On the right into line.* 2. MARCH. 3. *Guide right.* 4. FRONT.

(Fig. 159.) At the first command, the chief of the leading section commands, *section — right wheel;* and at the second, which he repeats, the section wheels to the right. As soon as the leading pivot carriage enters the new direction he commands, *forward — guide right;* and as the section completes the wheel, and unmasks the column, he commands, *section — halt; right — dress.*

The chiefs of the other sections repeat the command for the guide, and their section continues to move forward. As each section passes the one preceding it in the formation, its chief establishes it on the line, with the proper interval, by the same commands. The commands, *section—halt; right—dress,* are given when the section is four yards in rear of the line.

When the battery is aligned the captain commands, *front.*

The line is formed on the left according to the same principles and by inverse means. The commands are, *on the left into line — march; guide left — front.*

When the column is at a halt, the line is formed on the right or left in the same manner. In this case, the chiefs of the two rear sections command, *section — forward,* and afterwards repeat the commands, *march — guide right* (or *left.*)

To break into column to the front.

689. The battery being in line at a halt, to break into column to the front from the right, the captain commands:

1. *By section from the right—front into column.* 2. MARCH. 3. *Guide left.*

(Fig. 160.) At the first command, the chief of the right section commands, *section — forward;* and those of the other sections, *section*

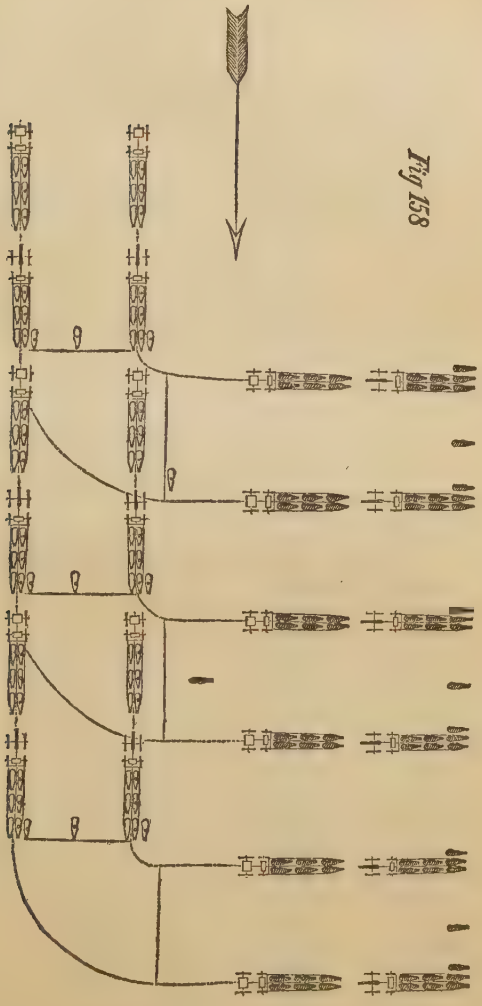


Fig 158

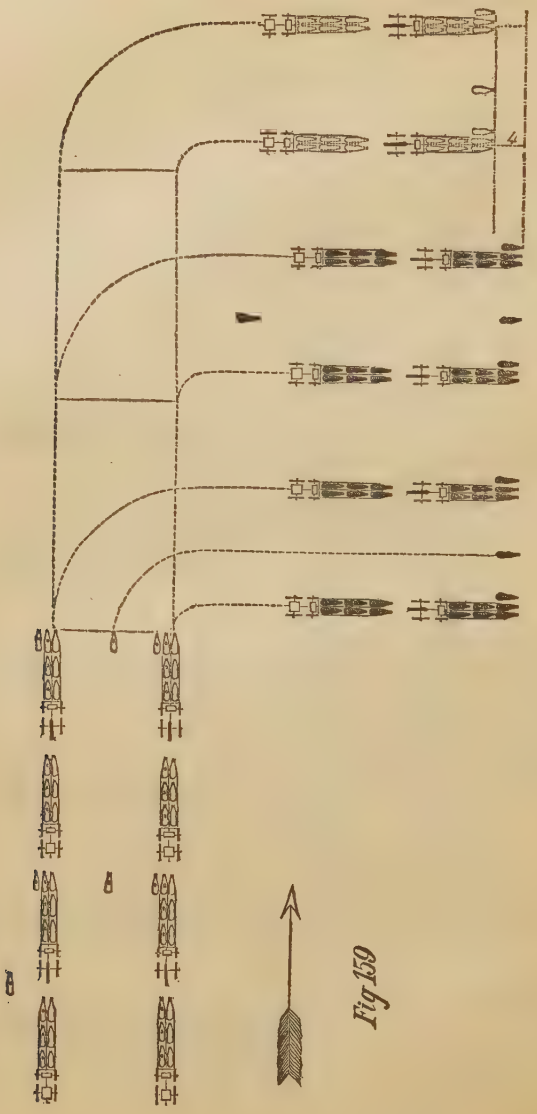


Fig 159

—*right oblique.* At the command *march,* repeated by the chief of the right section, that section moves forward, and its chief repeats the command for the guide.

Each of the other chiefs of sections repeats the commands *march; guide left,* after the section on his right has commenced the movement, and when the leaders of its rear carriages are in line with him. After obliquing sufficiently to gain the rear of the preceding sections, he commands, *forward.*

The movement is executed from the left according to the same principles and by inverse means.

To break into column to the rear.

The battery being in line, in march or at a halt, to break into column to the rear from one of the flanks, the captain executes an about or a countermarch, according to the kind of carriage he may wish in front, then halts the battery, and breaks it into column to the front by the preceding manœuvre.

To break into column to the right or left.

690. The battery being in line, in march, or at a halt, to break it into columns to the left, the captain commands:

1. *By section — left wheel.* 2. MARCH. 3. FORWARD. 4. *Guide left.*

At the first command, the chiefs of sections command, *section — left wheel;* and at the second, repeated by those chiefs, all the sections wheel to the left. When the wheels are nearly completed the captain commands, *forward — guide left,* and the chiefs of sections repeat the commands.

When the column is not to advance, the command, *column — halt* is substituted for *forward — guide left.*

The battery is broken into column to the right according to the same principles and by inverse means.

To break into columns to the front from one flank, to march towards the other.

691. The battery being in line at a halt, to break from the right to march to the left, the captain commands:

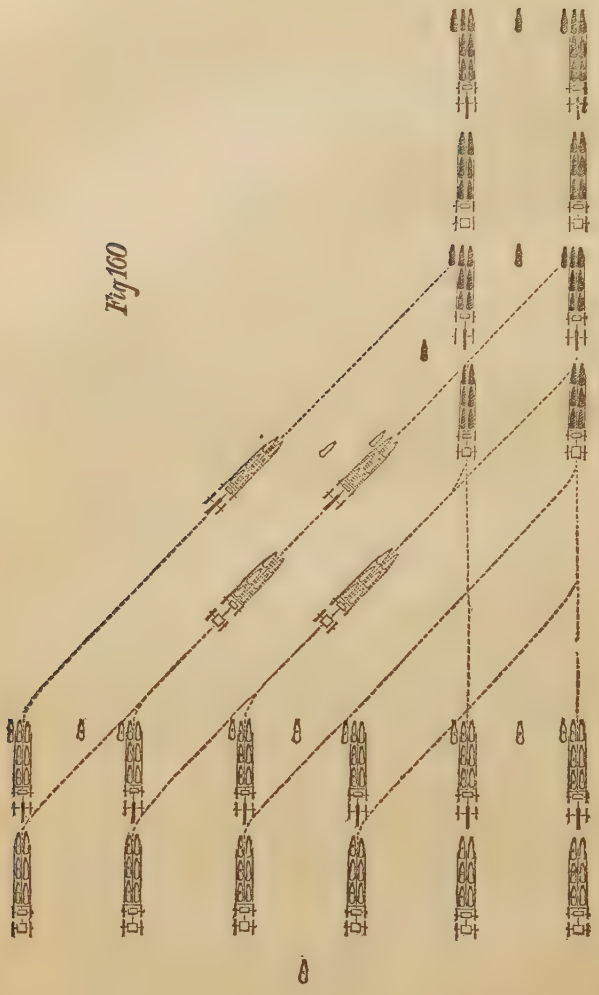


Fig 160

1. *By section—break from the right—to march to the left.* 2. MARCH. 3. *Guide left.*

At the first command, the chief of the right section commands, *section—forward;* and at the second, which he repeats, the section moves forward, and he commands, *guide left.* After advancing eleven yards he changes the direction to the left by the commands, *section—left wheel; march; forward.*

Each of the other chiefs of sections command, *section—forward,* in time to command *march,* when the limber wheels of the rear carriages in the section preceding his own arrive in front of him. He then conducts the section to the front, changes its direction to the left, and places it in rear of the preceding section by the commands already prescribed for the section on the right.

The battery is broken from the left to march to the right, according to the same principles and by inverse means.

To break into column to the rear from one flank, to march towards the other.

692. The battery being in line at a halt, to break to the rear from one flank to march towards the other, the captain first executes an about or countermarch, according to the kind of carriage he may wish in front. He then halts the battery and executes the preceding manœuvre.

To break into column to the front when the battery is marching in line.

693. The battery marching in line at a walk, to break into column to the front from the right, and at the same gait, the captain commands:

1. *By the right—break into sections.* 2. MARCH. 3. *Guide left.*

The chief of the right section repeats the command for the guide, and his section continues to move at the same gait. At the command *march,* the other sections are halted by the command, *section—halt,* from their chiefs.

The halted sections are put in motion successively by their chiefs;

each commanding, *section—right oblique*, in time to command *march*, when the leaders of the rear carriages in the section on his right arrive opposite to him. The sections oblique and enter the column as described in No. 689.

When the battery is marching at a trot, the movement is executed according to the same principles. But the sections which halted in the preceding case slacken the gait to a walk at the commands, *walk—march*, from their chiefs. They again trot and enter the column by the commands, *section—right oblique—trot; march; forward.*

When the battery is marching in line at a walk, to break into column from the right at a trot, the captain commands:

1. *By the right—break into sections—trot.* 2. MARCH. 3. *Guide left.*

At the first command, the chief of the right section commands *trot;* and at the second, which he repeats, the section changes its gait to a trot. He afterwards repeats the command, *guide left.*

Each of the other sections continues to march at a walk until required to enter the column, when its chief conducts it, as already described, by the commands, *section—right oblique—trot; march; forward.*

The battery is broken into column from the left, according to the same principles and by inverse means.

To form line advancing.

694. When the battery is marching in column at a walk, to form it into line at a trot, gaining ground to the left, and continue the march, the captain commands:

1. *Form line advancing—left oblique—trot.* 2. MARCH. 3. *Guide right.*

The chief of the leading section repeats the command for the guide, and his section continues to move at a walk.

At the first command, the chiefs of the other sections command, *section—left oblique—trot.* The command *march* is repeated by

the same chiefs; and when the oblique movement is commenced, they repeat the command, *guide right*. Each chief commands, *forward*, as soon as his section has obliqued sufficiently to the left, and *walk*, in time to command *march*, as it arrives on the line.

When the battery is marching in column at a trot, the movement is executed according to the same principles. In this case the captain does not command *trot;* and the chief of the leading section commands, *walk; march,* successively, after the first and second commands of the captain. The chiefs of the other sections give the same commands as their sections arrive on the line.

The movement is executed so as to gain ground to the right, according to the same principles, and by inverse means.

To form double column on the centre section.

695. The battery being in line at a halt, to form double column on the centre section, the captain commands:

1. *Double column on the centre.* 2. MARCH. 3. *Guide right* (or *left*).

(Fig. 161.) At the first command, the chief of the centre section commands, *section — forward;* the chief the right section, *section — left oblique;* and the chief of the left section, *section — right oblique.* At the command *march,* repeated by the chief of the centre section, that section marches to the front, and its chief repeats the command for the guide.

When the wheel horses in the rear rank of the centre section have passed the leaders in the front rank of the other sections, the chiefs of those sections repeat the command *march,* and the sections commence the oblique.

When the piece nearest the column is about entering it, in each of these sections, the chief of the right section commands, *by the left — break section; march;* and the chief of the left, *by the right — break section; march.* The right and left sections, without change of gait, then form into columns of pieces in rear of the right and left carriages of the centre section.

The chiefs of the flank sections are careful to make their pieces

enter the column at the proper time. And when the column is formed they place themselves outside of it, four yards from the centres of their respective sections.

The chief of the line of caissons follows the movement, sees that his carriages do not enter the column too soon, and, when the column is formed, places himself four yards in rear of the centre.

When the battery is marching at a walk, to form the double column at the same gait, the captain commands:

1. *Double column on the centre.* 2. MARCH. 3. *Guide right* (or *left*).

The chief of the centre section repeats the command for the guide, and the section continues to advance.

At the command *march,* the other sections are halted by the command, *section — halt,* from their chiefs. They are afterwards formed into column by the commands and means prescribed for forming double column from a halt.

When the battery is marching at a trot, the double column is formed according to the same principles. In this case the flank sections pass to a walk, instead of halting as before, and resume the trot to oblique and enter the column. The commands from their chiefs are, *walk; march; section — left* (or *right*) *oblique — trot; march,* and, *by the left* (or *right*) *— break section; march.*

When the battery is marching at a walk, to form the double column at a trot, the captain commands:

1. *Double column on the centre — trot.* 2. MARCH. 3. *Guide right* (or *left*).

At the first command, the chief of the centre section commands, *trot.* At the second, which he repeats, the section moves forward at a moderate trot, and he repeats the command for the guide.

The flank sections continue to walk until the centre has advanced sufficiently to allow them to oblique, and are then formed into column as already prescribed; their chiefs commanding, *section — left* (or *right*) *oblique — trot; march,* and, *by the left* (or *right*) *— break section; march.*

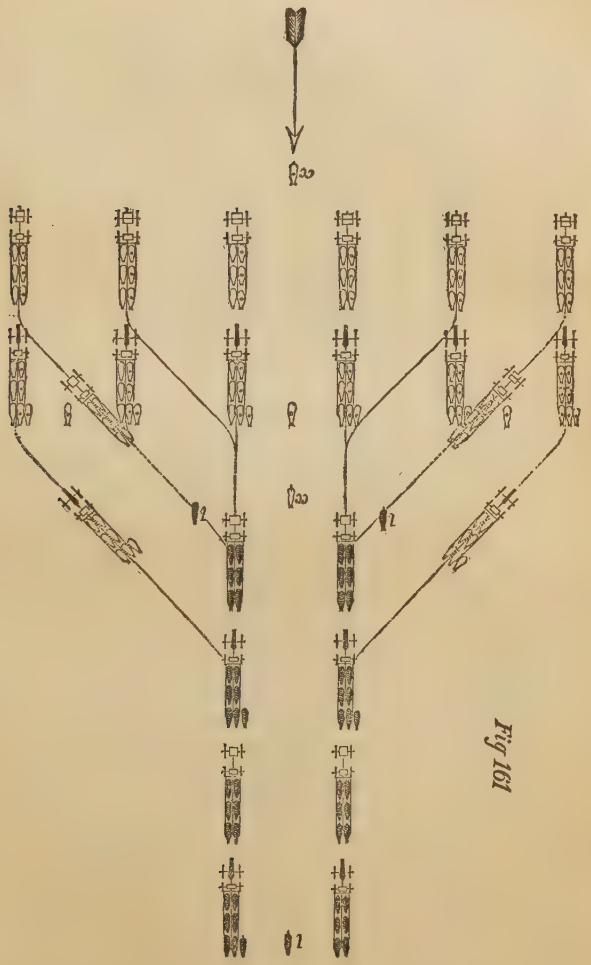


Fig 161

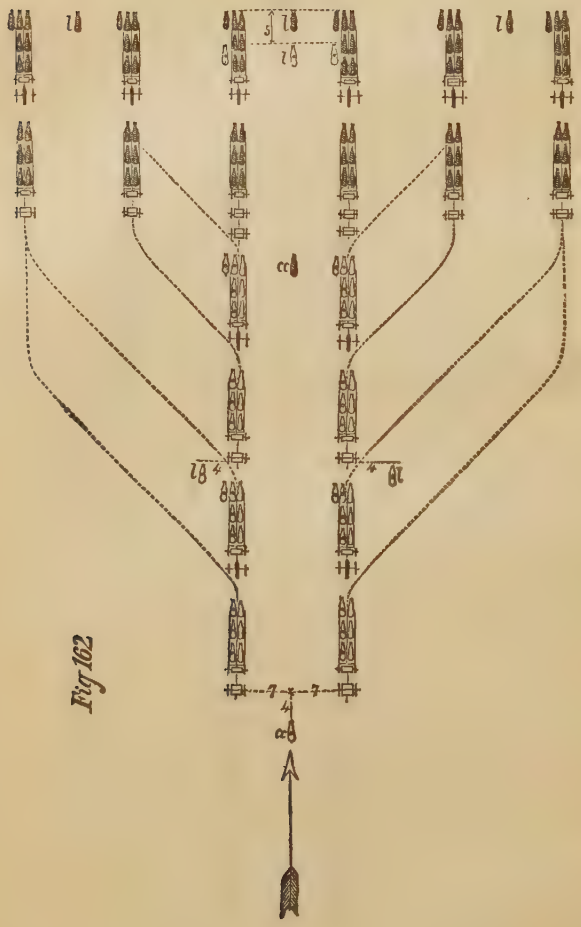


Fig 162

To form the double column with a battery of four pieces, the captain gives the same commands as with a battery of six. The right section is broken into column of pieces by the left, and the left section by the right. The chiefs of sections place themselves on the outer flanks of the column, abreast the leading drivers of the leading carriages. The senior chief repeats the command for the guide, and gives such other commands as are required for the head of the column; the leading carriages moving as a section for the time being.

To deploy the double column into line to the front.

696. The battery being in double column at a halt, to form it into line to the front, the captain commands:

1. *Forward into line.* 2. MARCH. 3. FRONT.

(Fig. 162.) At the first command, the chief of the centre section commands, *section forward;* the chief of the right section, *section into line — right oblique;* and the chief of the left section, *section into line — left oblique.* At the command *march,* repeated by these chiefs, the centre section advances five yards, and its chief commands, *section; halt — right* (or *left*) *— dress.*

The flank sections oblique to the right and left; and as their pieces arrive in rear of their proper places on the line, they move forward, halt, and dress towards the centre without command.

As soon as the battery is aligned, the captain commands, *front.*

When the column is marching, the movement is executed in the same manner. In this case the chief of the centre section does not command, *section — forward; march;* but halts and aligns his section after advancing five yards.

When the column is marching at a trot, to deploy it into line to the front at the same gait, without discontinuing the march, the captain commands:

1. *Form line advancing.* 2. MARCH. 3. *Guide right* (or *left*).

At the first command, the chief of the centre section commands, *walk;* the chief of the right section, *section into line — right oblique;*

and the chief of the left section, *section into line — left oblique.* At the command *march,* repeated by these chiefs, the centre section slackens its gait to a walk, and the flank sections deploy. As each piece arrives upon the line, its gait is changed to a walk without command. The movement is executed as in the preceding cases; but when the line is formed it continues to advance; the captain commanding, *guide right* (or *left*), which command is repeated by the chiefs of sections.

When the column is marching at a walk, to deploy it into line to the front at a trot, without discontinuing the march, the captain commands:

1. *Form line advancing—trot.* 2. MARCH. 3. *Guide right* (or *left*).

At the first command, the chief of the right section commands, *section into line — right oblique — trot;* and the chief of the left section, *section into line — left oblique — trot.* At the command *march,* repeated by these chiefs, the flank sections deploy at a trot; the centre section continues to march at a walk; and, the line having been formed as in the preceding case, the captain gives the command for the guide.

When the battery consists of four pieces, the double column is deployed into line to the front by the same commands from the captain as when it consists of six. The chiefs of sections give the same commands as in the other case, and then their sections are formed as in No. 674. When the line is to be halted, as in forming *forward into line,* the senior chief commands, *halt — (right* or *left) — dress,* as soon as the leading carriages have advanced five yards; and the alignment is made upon the central carriages.

To form the double column into line to the right or left.

697. The battery being in double column at a halt, to form it into line on the right, the captain commands:

1. *To and on the right into line.* 2. MARCH. 3. FRONT.

At the first command, the chief of the leading section commands, *section — right wheel;* and the other chiefs of sections, *forward.*

At the second, repeated by those chiefs, the leading section wheels to the right and is established on the line as in No. 687. The other pieces advance under the direction of their chiefs and of the chiefs of sections, wheel to the right in succession as they arrive opposite their places, establish themselves on the line, and dress upon the pieces already aligned. When the alignment is completed the captain commands, *front.*

When the column is marching, the line is formed to the right in the same manner, except that the chiefs of the flank sections omit the commands, *forward — march.* The line is formed to the left according to the same principles and by inverse means.

When the battery consists of four pieces, the double column is deployed into line to the right or left by the same commands from the captain, as when it consists of six. In this case the leading pieces are wheeled to the right or left, as a section, and established on the line. For this purpose the senior chief of section commands, *right* (or *left*) *wheel; march; forward; guide right* (or *left*); *halt; right* (or *left*) — *dress.* The other pieces move forward, wheel in succession as they arrive opposite their places, and form on the line as already described.

To advance in line.

698. The battery being in line at a halt, to cause it to advance, the captain indicates to the guide the points on which he is to march, and commands:

1. *Battery — forward.* 2. MARCH. 3. *Guide right* (or *left*).

The commands, *forward; march; guide right* (or *left*), are repeated by the chiefs of sections. At the command *march,* all the carriages move forward at a walk, and the chiefs of sections preserve the alignment towards that chief of carriage who serves as *guide of the line.* The guide marches steadily in the given direction, and the chiefs of carriages regulate their intervals and alignment by him.

The carriages of the rear rank follow those in front at their appropriate distance of two yards. The chief of the line of caissons superintends the march of the rear rank of carriages, and moves wherever his presence may be necessary for that purpose.

In *horse artillery* the detachments preserve their alignments, and follow their pieces at the proper distance.

To halt the battery and align it.

699. When the battery is marching in line, to halt and align it, the captain commands:

1. *Battery*—HALT. 2. *Right* (or *left*)—DRESS. 3. FRONT.

The commands, *halt; right* (or *left*)—*dress*, are repeated by the chiefs of sections. At the first command, the carriages and detachments halt, and at the second align themselves by the right (or left) in their respective ranks; the carriages dressing by the drivers of their wheel horses. The carriages are placed as squarely on the line as possible without opening or closing the intervals. The captain superintends the alignment of the front rank of carriages, and the chief of the line of caissons that of the rear; each placing himself for that purpose on the flank of the guide. When the battery is aligned, the captain commands *front.*

When the battery is halted, if it cannot be aligned by slight movements, the captain causes one or two carriages from one of the flanks or centre to advance four yards, or to a greater distance if necessary, and then causes the alignment to be made by the right, left, or centre, by the command, *right, left,* or, *on the centre*—*dress.* At this command, the carriages and detachments move forward and align themselves according to the principles just explained; the drivers halting a little in rear of the line, and dressing forward so as to place the carriages as squarely upon it as possible.

To change direction in line.

700. The battery being in line at a halt, to wheel it to the right, the captain commands:

1. *Battery right wheel.* 2. MARCH. 3. FORWARD. 4. *Battery*—HALT. 5. *Right*—DRESS. 6. FRONT.

The commands, *right wheel; march; forward; halt; right*—*dress*, are repeated by the chiefs of sections.

At the command *march*, the pivot carriage moves at a walk, and describes a quadrant (twenty-two yards) of a circle, whose radius is fourteen yards. The other carriages move at a trot and preserve their intervals from the pivot. They regulate their gaits according to their distances from the pivot, so as to remain as short a time as possible in rear of the line, without urging their horses injuriously, and so as to arrive upon it in succession. The carriages of the rear rank follow at the proper distance in the tracks of those in front.

At the command *forward*, which is given when the leading pivot carriage has described its arc of twenty-two yards, that carriage moves direct to the front; and when the rear pivot carriage is in the new direction, the captain commands, *battery; halt; right—dress.* The commands *forward; halt; right—dress*, are repeated by the chief of the right section immediately after the captain; and by the other chiefs in time to be applicable to their sections; the pivot carriages halting at the command *halt*, and the others halting and dressing towards the pivot as they arrive in succession on the line.

When the battery is aligned, the captain commands *front.*

The battery is wheeled to the left according to the same principles and by inverse means.

When the battery is at a halt or marching in line, to wheel it to the right and continue the march, the captain commands:

1. *Battery — right wheel.* 2. MARCH. 3. FORWARD.

The movement is executed as already described, except that the pivot carriage, after wheeling, continues to march in the new direction, and the others conform to its gait and direction as they arrive on the line.

The direction is changed to the left according to the same principles and by inverse means.

FORMATIONS IN BATTERY.

In line with pieces in front to form in battery to the front.

701. When the battery is in line at a halt, with the pieces in front, to form in battery to the front, the captain commands:

1. IN BATTERY. 2. *Guide left.* 3. MARCH.

(Fig. 163.) These commands are repeated by the chiefs of sections. At the command *in battery*, the caissons stand fast, and the pieces advance. The intervals and alignment are preserved, and the chiefs of pieces and sections march at their places in line. At the command *march*, which is given as soon as they have advanced seventeen yards, the chiefs of pieces and sections halt, and the pieces execute an about. As soon as the about is completed, the pieces are halted, unlimbered, and prepared for firing; the limbers being taken to their places in battery by an about.

When the cannoneers are marching by the sides of their pieces, they halt at the command *march*, allow their pieces to pass them, change sides, and move forward to the posts they are to occupy, when their pieces have completed the about. They are not required to observe any particular order during this movement.

When the cannoneers are mounted on the ammunition chest, those on the caissons dismount and run to their posts at the command *in battery*. Those on the pieces dismount after the about.

The chiefs of pieces and sections, take their posts in battery, as soon as the formation is completed.

In *horse artillery*, the movement is executed in the same manner, and by the same commands. But the pieces advance only ten yards before executing the about. The horses of the detachments do not advance. But at the command *in battery*, the cannoneers dismount and run to their posts.

After the formation the captain rectifies the alignment if necessary.

When the battery is marching in line with the pieces in front, it is formed in battery to the front, according to the same principles, and by the commands, *in battery — march.* The caissons halt at the command *in battery;* and in horse artillery the detachments do the same; the cannoneers dismounting and running to their posts.

To form in battery to the front by throwing the caissons to the rear.

702. When the battery is in line at a halt, with the pieces in front, to form in battery to the front by throwing the caissons to the rear, the captain commands:

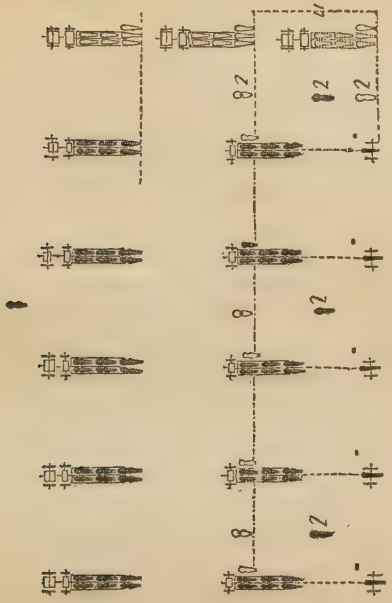
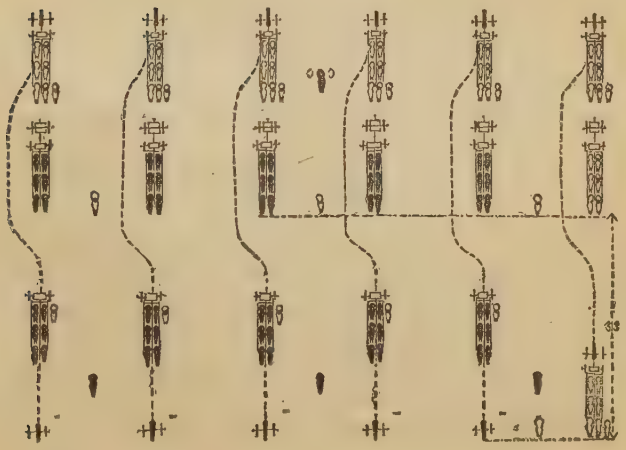


Fig 163



47

ACTION FRONT.

At this command, repeated by the chiefs of sections, the pieces are unlimbered and wheeled about by hand: the limbers reversing to the left at the same time, and taking their places in battery, as described in the school of the piece, No. 658. The caissons reverse to the left, move to the rear, reverse again to the left, and take their places in battery.

When the cannoneers are mounted on the ammunition chests, they dismount and run to their posts at the command *action front.*

In *horse artillery*, when this mode of coming into action is resorted to, the detachments move to the posts belonging to their horses in battery, before dismounting, except when the number of horses is so small, that they may be led to the rear by the horse holders. In this case the captain commands, *dismount*; immediately after, *action front.* When the detachments conduct their horses to the rear, they dismount without command from the captain.

The battery is generally in line at a halt when this mode of coming into action is resorted to. It may also be used in successive formations by giving the command *action front*, when a part of the battery has been halted on the line. But with bad ground or heavy pieces this mode of coming into action should not be used.

In line with caissons in front, to form in battery to the front.

703. When the battery is in line at a halt, with the caissons in front, to form in battery to the front, the captain commands:

1. *Pieces pass your caissons.* 2. MARCH. 3. IN BATTERY. 4. *Guide left.* 5. MARCH.

(Fig. 163.) These commands are repeated by the chiefs of sections; the pieces pass their caissons, and at the command *in battery*, given as soon as the pieces have passed their caissons, the formation is executed as prescribed in No. 702.

In *horse artillery*, the command *in battery* is given when the detachments have passed the caissons.

When the battery is marching in line, with the caissons in front,

it is formed in battery to the front according to the same principles, and by the commands, *pieces pass your caissons* (or *pieces pass your caissons — trot*); *march; in battery; guide left — march.*

In line with pieces in front, to form in battery to the rear.

704. When the battery is in line at a halt, with the pieces in front, to form in battery to the rear the captain commands:

1. *Fire to the rear.* 2. *Caissons pass your pieces—trot.* 3. MARCH. 4. IN BATTERY.

The three last commands are repeated by the chiefs of sections. At the third, the caissons pass their pieces at a brisk trot. And at the fourth, which is given as soon as the caissons have passed, the cannoneers unlimber and prepare for firing.

The caissons advance seventeen yards beyond their pieces, execute an about together, and take their places in battery.

When the cannoneers are mounted on the ammunition chests, the caissons advance seventeen yards beyond their pieces, and then halt to allow the cannoneers to dismount before executing the about. As soon as the caissons halt, the cannoneers dismount and run to their posts. When the battery is at a halt, as in the present case, it is considered better to dismount the cannoneers before commencing the movement. The chief of the line of caissons precedes the movement of his carriages, and places himself on the line to be occupied by their leaders, when the about is commenced. He takes his place in battery as soon as the about is completed, and the carriages are on the line.

The chiefs of pieces and sections take their places in battery as soon as the formation is completed.

In *horse artillery*, at the command *in battery*, the detachments incline to the right, pass their pieces at a brisk trot, and take their places in battery by a left about. The cannoneers then dismount, run to their posts, unlimber, and prepare for firing.

When the battery is marching in line, with the pieces in front, the formation in battery to the rear is executed according to the same principles and by the same commands. At the command *in*

battery, which is given as soon as the caissons have passed their pieces, the latter halt, the detachments in horse artillery pass them, and the movement is completed as already described.

In line with caissons in front, to form in battery to the rear.

705. When the battery is in line at a halt, with the caissons in front, to form in battery to the rear, the captain commands:

1. *Fire to the rear.* 2. IN BATTERY.

At the command *in battery*, which is repeated by the chiefs of sections, the cannoneers unlimber and prepare for firing.

The chiefs of pieces and sections take their places in battery.

The caissons move at a brisk trot and take their places in battery, under the superintendence of their chief.

In *horse artillery*, at the command, *in battery*, the detachments pass their pieces at a trot, move to their places in battery, dismount, and run to their posts.

When the battery is marching in line, with the caissons in front, the formation in battery to the rear is executed according to the same principles and by the same commands.

In battery, to form in line to the front.

706. Being in battery, to form in line to the front with the caissons in rear, the captain commands:

LIMBER TO THE FRONT.

This command is repeated by the chiefs of sections, and the pieces are limbered as described in No. 648; the caissons closing at the same time to the proper distance without further command.

When the captain wishes to place the caissons in front, he commands, *limber to the front;* and while the pieces are limbering, *caissons pass your pieces — trot; march.* The caissons pass and halt in front of their pieces; or, if the captain wishes the battery to advance, he commands, *forward; guide right* (or *left*), as the caissons are completing the passage, and the battery moves forward at a walk.

In *horse artillery*, when the pieces are limbered to the front, the horse holders advance within two yards of their pieces; and there the cannoneers mount.

The captain rectifies the alignment, if necessary, and commands, *front.*

When the battery is to advance immediately, the captain commands, *forward; guide right* (or *left*), instead of *battery—halt;* and the caissons close on the march.

When the captain wishes to place the caissons in front, he may cause the pieces to be limbered to the rear, and command:

1. *Caissons pass your pieces — trot — pieces left about.* 2. MARCH 3. *Battery* — HALT, or FORWARD — *Guide right* (or *left*).

These commands are repeated and executed as already prescribed; the pieces executing the about as soon as the ground has been unmasked by the caissons, and the battery halting or advancing, as soon as the passage is completed.

In *horse artillery*, when the pieces are limbered to the rear, the cannoneers run to their horses, mount, and rejoin their pieces.

In battery to form in line to the rear.

707. When in battery, to form in line to the rear, the captain causes the pieces to be limbered to the rear; and then, if he wishes to place the caissons in front, commands:

1. *Caissons left about—pieces forward.* 2. MARCH. 3. *Battery*— HALT, or FORWARD — *Guide right* (or *left*).

The two first commands are repeated by the chiefs of sections; the caissons execute the about; and the pieces close to their proper distance. The third command, which is given at the moment the about is finished, is repeated and executed as prescribed.

The captain rectifies the alignment if necessary, and commands, *front.*

In *horse artillery*, the detachments oblique to the left to facilitate the movement of the caissons. And then if the battery halts, they place themselves at once in rear of their pieces; or if it advances, they wait and do the same by wheeling to the right, as they pass.

If the formation in line to the rear is to be executed by placing the pieces in front, the captain, after causing the pieces to be limbered to the rear, commands:

1. *Pieces pass your caissons — caissons left about.* 2. MARCH. 3. *Battery* — HALT, or FORWARD — *Guide right* (or *left*).

The first two commands are repeated by the chiefs of sections; the pieces pass their caissons; and the caissons execute the about as soon as the ground is unmasked. The third command is repeated and executed according to the principles prescribed in No. 698.

The captain rectifies the alignment if necessary, and commands, *front.*

In *horse artillery*, the detachments place themselves behind their pieces as soon as they are passed by them.

In forming line to the rear, either with pieces or caissons in front, the caissons may be placed at once in front of their pieces for greater convenience in mounting the cannoneers. For this purpose, as soon as the captain has commanded, *limber to the rear*, he commands:

1. *Caissons in front of your pieces* (or *caissons in front of your pieces — trot*). 2. MARCH.

These commands are repeated by the chiefs of sections; and while the pieces are limbering, the caissons oblique to the right, move forward near the middle of the interval between the leaders of the pieces, place themselves in front of them by two successive wheels to the left, and halt.

In *horse artillery*, when the caissons are ordered to the front of their pieces, the horse holders oblique to the left at the command *march*, and halt between the leading drivers of the pieces. As soon as the cannoneers are mounted, the detachments take their posts in rear of their pieces.

In column with pieces in front, to form in battery to the front.

708. (Fig. 164.) When the battery is in column at a halt, with the pieces in front, to form in battery to the front by gaining ground to the left, the captain commands:

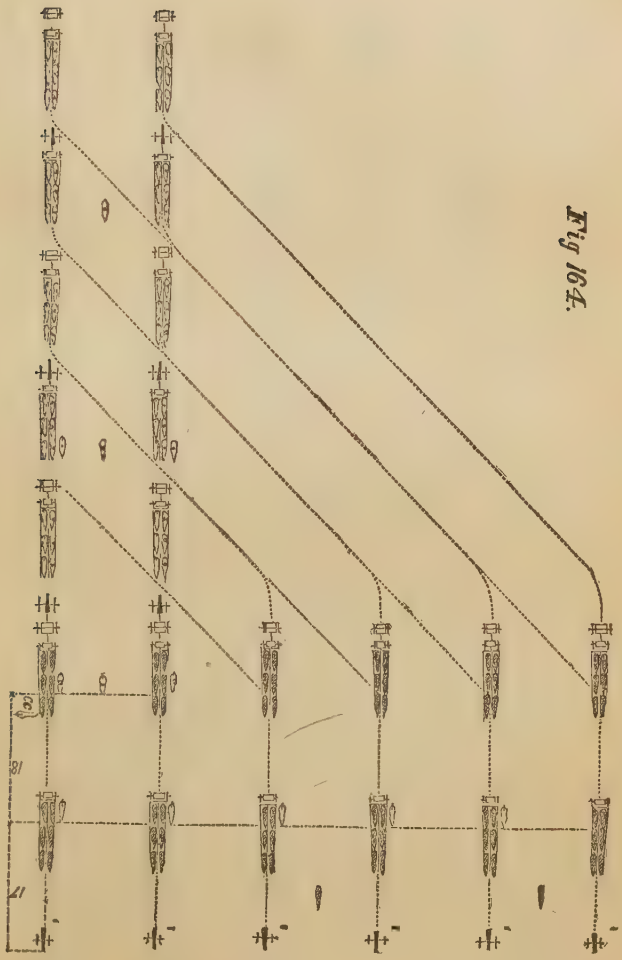


Fig 164.

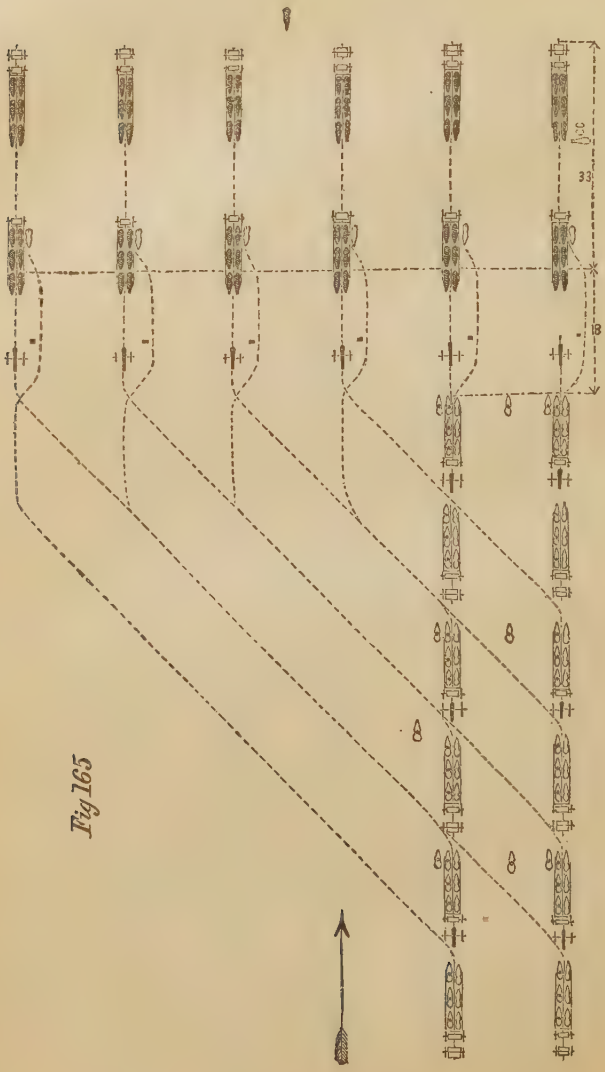


Fig. 195.

1. *Forward into battery—left oblique.* 2. MARCH. 3. *Guide right.*

At the first command, the chief of the leading section commands, *section — forward;* and those of the other sections, *section — left oblique.* The chief of the line of caissons moves quickly to the right of the leading section, to cause the caissons to halt at the proper time and to superintend their alignment. At the command *march,* repeated by the chiefs of sections, the movement is executed as prescribed in No. 685, for forming line to the front. But as each section arrives on the line instead of halting, its chief forms it in battery to the front by the commands, *in battery; march,* which are executed as prescribed in No. 701.

The formation in battery to the front, by gaining ground to the right, is executed according to the same principles and by inverse means.

When the battery is marching in column, it is formed in battery to the front by applying the principles of No. 701.

In column with caissons in front, to form in battery to the front.

709. When the battery is in column at a halt, with the caissons in front, to form in battery to the front by gaining ground to the left, the captain commands:

1. *Forward into battery—left oblique.* 2. MARCH. 3. *Guide right.*

At the first command, the chief of the leading section commands, *section — forward;* and those of the other sections, *section — left oblique.* The chief of the line of caissons moves quickly to the right of the leading section, to halt the caissons at the proper time and to superintend their alignment. At the command *march,* repeated by the chiefs of sections, the movement is executed as prescribed in No. 701, for forming line to the front. But as each section arrives on the line instead of halting, its chief forms it in battery to the front by the commands, *pieces pass your caissons; march; in battery; march,* which will be executed as prescribed in No. 703.

The formation in battery to the front, by gaining ground to the

right, is executed according to the same principles and by inverse means.

When the battery is marching in column, it is formed in battery to the front by applying the principles laid down in the latter part of No. 703.

In column with pieces in front, to form in battery to the rear.

710. When the battery is in column at a halt, with the pieces in front, to form in battery to the rear by gaining ground to the left, the captain commands:

1. *Into battery faced to the rear — left oblique.* 2. MARCH. 3. *Guide right.*

(Fig. 165.) At the first command, the chief of the leading section commands, *section — forward;* and those of the other sections, *section — left oblique.* The chief of the line of caissons goes to the right of the leading section, to direct the about of the caissons, and to superintend their alignment. At the command *march,* repeated by the chiefs of sections, the movement is executed as prescribed in No. 685, for forming line to the front. But as each section arrives on the line, instead of halting, its chief forms it in battery to the rear by the commands, *caissons pass your pieces — trot; march; in battery,* which are executed as prescribed in No. 704.

The formation in battery to the rear, by gaining ground to the right, is executed according to the same principles and by inverse means.

When the battery is marching in column, it is formed into battery to the rear by applying the principles prescribed in the latter part of Nos. 685 and 704.

In column with caissons in front to form in battery to the rear.

711. The battery being in column at a halt, with the caissons in front, to form in battery to the rear by gaining ground to the left, the captain commands:

1. *Into battery faced to the rear — left oblique.* 2. MARCH. 3. *Guide right.*

At the first command, the chief of the leading section commands, *section — forward;* and those of the other sections, *section — left oblique.* The chief of the line of caissons goes to the right of the leading section, to direct the about of the caissons, and to superintend their alignment. At the command *march,* repeated by the chiefs of sections, the movement is executed as prescribed in No. 685 for forming line to the front. But as each section arrives on the line, instead of halting, its chief forms it into battery to the rear by the command *in battery,* which is executed as prescribed in No. 704.

The formation in battery to the rear, by gaining ground to the right, is executed according to the same principles and by inverse means.

When the battery is marching in column, it is formed into battery to the rear by applying the principles of Nos. 685 and 704.

In column with pieces in front, to form in battery to the right or left.

712. When the battery is in column, in march, or at a halt, with the pieces in front, if the captain wishes to form it in battery to the left, by gaining ground to the right, he commands:

1. *Fire to the left—by section right wheel.* 2. MARCH. 3. *Caissons pass your pieces — trot.* 4. MARCH. 5. IN BATTERY.

(Fig. 166.) At the first command, the chiefs of sections command, *section — right wheel;* and at the second, which they repeat, all the sections wheel to the right. The caissons follow their pieces at the proper distance.

At the commands, *caissons pass your pieces—trot; march,* which are given before the completion of the wheel, and repeated by the chiefs of sections, all the caissons pass their pieces at a trot.

At the command *in battery,* which is given and repeated in like manner as soon as the caissons have passed, and the pieces are square on the new line, all the sections form at once into battery to the rear, as prescribed in No. 704.

When the captain wishes to form in battery to the left, by gaining ground to the left, he commands:

1. *Fire to the left — by section left wheel.* 2. MARCH. 3. IN BATTERY. 4. MARCH.

(Fig. 167.) At the first command, the chiefs of sections command, *section left wheel;* and at the second, which they repeat, all the sections wheel at once to the left.

At the command *in battery*, which is given and repeated as soon as the caissons have completed the wheel, all the sections form at once into battery to the front, as prescribed in No. 703.

The two formations in battery to the right, by gaining ground to the left or right, are executed according to the same principles and by inverse means.

In column with caissons in front, to form in battery to the right or left.

713. When the battery is in column, in march or at a halt, with the caissons in front, to form it in battery to the left, by gaining ground to the right, the captain commands:

1. *Fire to the left — by section right wheel.* 2. MARCH. 3. IN BATTERY.

At the first command, the chiefs of sections command, *section — right wheel;* and at the second, which they repeat, the sections wheel at once to the right, and move to the front at the commands, *forward — guide right*, from their chiefs.

At the command *in battery*, which is given and repeated as soon as the pieces are square on the new line, all the sections form at once into battery to the rear, as prescribed in No. 704.

To form in battery to the left, by gaining ground to the left, the captain commands:

1. *Fire to the left — by section left wheel.* 2. MARCH. 3. *Pieces pass your caissons.* 4. MARCH. 5. IN BATTERY. 6. MARCH.

At the first command, the chiefs of sections command, *section — left wheel;* and at the second, which they repeat, the sections wheel at once to the left. The third and fourth commands are given and

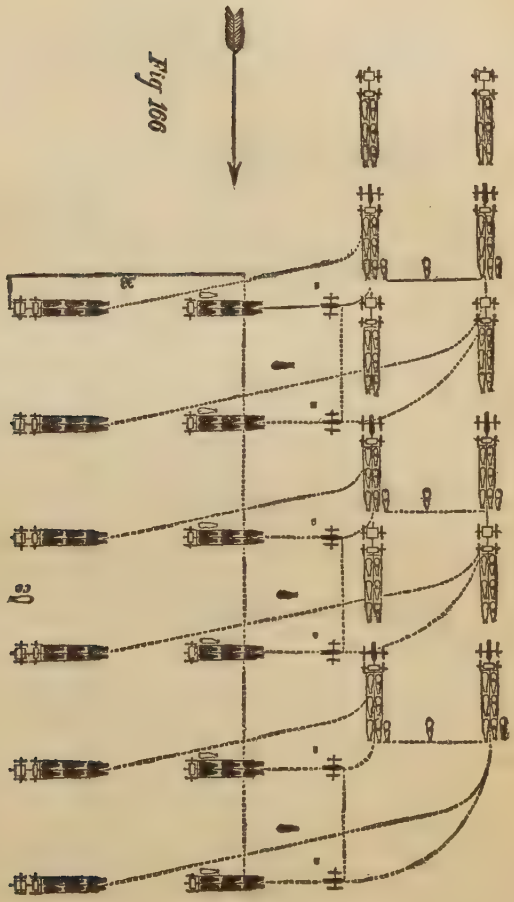


Fig. 169
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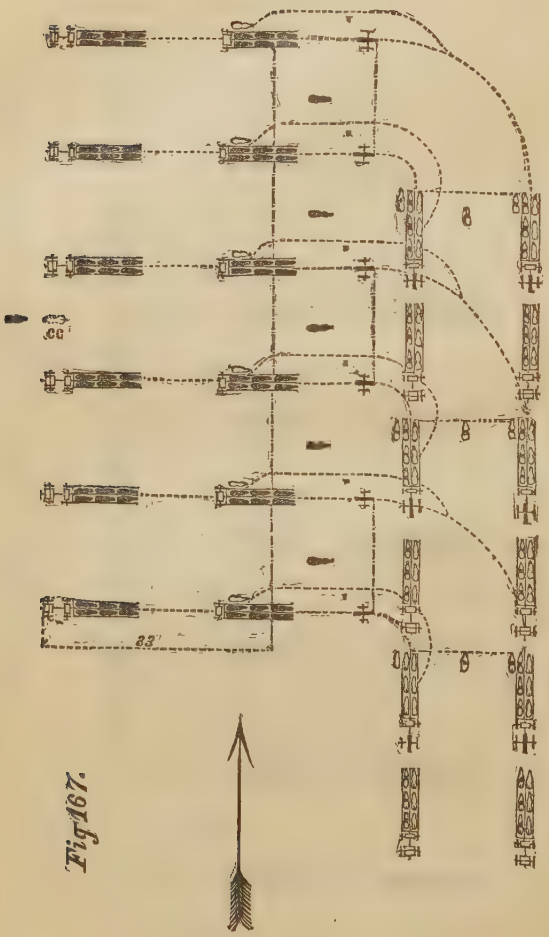

Fig. 1917.

repeated just before the completion of the wheel; and the fifth is given when the pieces have passed their caissons, and the latter are square upon the new line. The sections are then formed in battery to the front as prescribed in No. 703.

The formations in battery to the right, by gaining ground to the right or left, are executed according to the same principles and by inverse means.

In column with pieces in front, to form in battery on the right or left.

714. When the battery is marching in column with the pieces in front, to form in battery on the right, the captain commands:

1. *On the right into battery.* 2. MARCH. 3. *Guide right.*

At the first command, the chief of the leading section commands, *section — right wheel;* and the chief of the line of caissons goes to that section. At the command *march,* repeated by the chief of the leading section, that section wheels to the right, and its chief conducts it to the line by the commands, *forward — guide right.* And then, without halting, it is formed into battery to the front, as prescribed in No. 703, by the commands, *in battery — march,* from its chief.

The other sections continue to advance; and as each arrives opposite its place in battery, after passing the one preceding it in the formation, it is formed into battery by its chief, by the commands, *section — right wheel; march; forward; guide right; in battery; march;* the command *in battery* being given as the caissons arrive in line with those already established.

The formation in battery on the left is executed according to the same principles and by inverse means.

When the battery is in column at a halt, it is formed in battery on the right or left according to the same principles. In this case, the chiefs of the two rear sections command, *section — forward,* immediately after the first command of the captain, and then repeat the commands, *march; guide right* (or *left*).

In column with caissons in front, to form in battery on the right or left.

715. When the battery is marching in column, with the caissons in front, to form in battery on the right, the captain commands:

1. *On the right into battery.* 2. MARCH. 3. *Guide right.*

At the first command, the chief of the leading section commands, *section — right wheel;* and the chief of the line of caissons goes to that section. At the command *march*, repeated by the chief of the leading section, that section wheels to the right, and is conducted to the line by the commands, *forward—guide right*, from its chief; as soon as it reaches the line, the section is formed in battery to the front by the commands, *pieces pass your caissons; march; in battery; march*, from its chief.

The other sections continue to advance, and as each arrives opposite its place in battery, after having passed the one preceding it in the formation, it is wheeled to the right, and formed into battery by its chief, in the same manner as the leading section.

The formation in battery on the left, is executed according to the same principles and by inverse means.

When the battery is in column at a halt, it is formed in battery on the right or left, according to the same principles: the chiefs of the two rear sections giving the additional commands prescribed in No. 714.

To deploy the double column into battery to the front or rear.

716. The battery being in double column at a halt, to deploy it into battery to the front, the captain commands:

1. *Forward into battery.* 2. MARCH.

At the first command, the chief of the centre section commands, *section — forward;* that of the right, *section into line — right oblique;* that of the left, *section into line — left oblique;* and the chief of the line of caissons goes to the leading section. At the command *march*, repeated by the chiefs of sections, the centre sec-

tion advances five yards, and, without halting, is formed into battery to the front as prescribed in No. 701 or 703, according to the kind of carriage in front.

The pieces of the flank sections are brought upon the line by obliquing, and placed successively in battery without command; regulating by the centre section.

When the battery is marching in double column, it is deployed into battery to the front in the same manner, except that the chief of the centre section does not command, *section — forward; march.*

When the battery is in double column, marching or at a halt, it is deployed into battery to the rear according to the principles prescribed in this No. and in No. 704 or 705, according to the kind of carriage in front. The commands are:

1. *Into battery faced to the rear.* 2. MARCH.

When the battery consists of four pieces, the double column is deployed into battery to the front or rear, by the same commands from the captain as when it consists of six. The sections are formed into battery as prescribed for the flank sections in this number. The senior chief of section, besides superintending the formation of his own, gives the commands required for the centre section, and the leading pieces conform to the movements of that section.

To deploy the double column into battery to the right or left.

717. When the battery is in double column, marching or at a halt, to form it in battery to the right, the captain commands:

1. *To and on the right into battery.* 2. MARCH.

The centre section is formed in battery on the right, as prescribed for the leading section in No. 712 or 713, according to the kind of carriage in front.

The other pieces are brought into line as prescribed in No. 697, and, without halting, are formed successively in battery to the front without commands; regulating by the centre section.

The deployment into battery to the left is executed according to the same principles and by inverse means.

When the battery consists of four pieces, the double column is deployed into battery to the right or left, by the same commands from the captain as when it consists of six. In this case the leading pieces are wheeled to the right or left as a section, and conducted to the line by the senior chief of section. And then, without halting, they are formed into battery to the front by the same chief. The other pieces move forward, wheel in succession as they arrive opposite their places, and form in battery on the alignment of those already established.

To pass from the order in battery to the order in column.

718. Being in battery, to form column, the captain first causes the line to be formed as prescribed in Nos. 706 or 707, and then forms column by one of the manœuvres for passing from the order in line to the order in column.

FIRINGS.

719. When everything is prepared for firing, the captain commands:

COMMENCE FIRING.

This command, given by itself or after *load*, is repeated by the the chiefs of sections, and the firing immediately commenced.

The firing is discontinued by the command or signal, *cease firing*, which is repeated by the chiefs of sections and pieces.

When the battery is formed for action, the pieces are not loaded until the command *load* or *commence firing* is given by the captain. In successive formations, when this command is given, it is repeated in succession by the chiefs of sections, as their sections are formed on the line.

At the command *cease firing*, such pieces as are loaded must be discharged.

To fire advancing.

720. When the battery is firing, to advance by half batteries, the captain commands:

1. *Fire advancing — by half battery.* 2. *Right half battery —* ADVANCE.

At the second command, the chief of the right half battery discontinues firing, causes his pieces to be limbered to the front, and commands *forward; march; guide left.*. Or, he may cause them to be limbered to the rear, and after executing the about, command, *forward; guide left.* The half battery advances, and the caissons preserve their distance in battery.

As soon as the right half battery reaches the new position, previously indicated by the captain, its chief places it in battery by the commands, *halt; action front;* or *in battery; march;* the two last commands being given in quick succession. The caissons halt at these commands; and as soon as the pieces are unlimbered, the firing is renewed by command from the chief of half battery.

The fire of the left half battery is continued during the movement of the right, care being taken to direct the pieces so that their fire shall not injure the half battery in advance.

As soon as the right half battery commences firing, the left moves forward with the guide to the right; and, after passing the right half battery as far as the latter has advanced, is formed into battery, and the firing commenced. The movements of the left half battery are effected by commands and means corresponding to those of the right.

The right half battery again advances, as soon as the left commences firing; and the two continue to advance alternately until the captain causes the firing to cease. The battery is then aligned, or formed into line to the front or rear by the proper commands from the captain.

While advancing by half battery, the captain places himself habitually with the most advanced portion of the battery, and is accompanied by the chief of the centre section. The chief of the line of caissons remains habitually with the rear half battery.

In *horse artillery*, while advancing by half battery, the detachments preserve their distance in battery. When the pieces are limbered to the front, the horse holders advance to enable the cannoneers to mount more readily; but as soon as the pieces advance, the detachments resume their distance in battery.

To fire advancing by half battery, commencing with the left, is executed according to the same principles and by inverse means.

The movement may also be executed by sections; the sections advancing in succession according to their positions in the battery.

To fire in retreat.

721. When the battery is firing, to retire by half batteries, the captain commands:

1. *Fire retiring—by half battery.* 2. *Right half battery*—RETIRE.

At the second command, the chief of the right half battery discontinues firing, limbers to the rear, and commands, *caissons left about — march.* As soon as the about is completed, he commands, *forward — guide right;* and conducts the half battery to the ground previously indicated by the captain; the pieces preserving their distance in battery by marching nineteen yards in rear of the caissons. As soon as the ground has been reached, the chief of half battery commands, *halt; in battery,* and commences firing; taking care not to injure the other half battery. The limbers and caissons remain facing towards the rear, as long as the firing in retreat continues.

As soon as the right half battery commences firing, the left retires with the guide to the left; and, after passing the right half battery as far as the latter has retired, it is formed into battery, and the firing again commenced. The movements are executed in a manner corresponding to those of the other half battery.

The half batteries continue to retire alternately, until the captain causes the firing to cease. The battery is afterwards aligned, or formed into line to the front or rear, by appropriate commands from the captain.

While retiring by half battery, the captain remains habitually with the portion of the battery nearest the enemy, and is accom-

panied by the chief of the centre section. The chief of the line of caissons accompanies the other half battery.

In *horse artillery*, the detachments move to the left to facilitate the about of the caissons. They afterwards place themselves behind and follow them during the retrograde movement at the distance of two yards; remaining faced to the rear as long as the firing in retreat continues.

To fire retiring by half battery, commencing with the left, is executed according to the same principles and by inverse means.

The movement may also be executed by sections; the sections retiring in succession according to their positions in the battery.

Movements for firing in echellon.

722. When the battery is in line at a halt with pieces in front, to advance in echellon of pieces, the captain commands:

1. *By piece from the right—front into echellon.* 2. MARCH.

(Fig. 168.) At the first command, the right piece moves forward, followed by its caisson. The next piece moves forward in like manner as soon as its leaders are abreast the wheel horses of the rear carriage on the right; and the other pieces commence the movement in succession according to the same rule.

The officers preserve the same relative positions as in line.

When the battery is marching in line at a walk or trot, the echellon is formed according to the same principles and by the same commands; the gaits being regulated as in breaking sections.

The battery advances in echellon of pieces from the left according to the same principles and by inverse means.

When the caissons are in front, the battery advances in echellon of pieces from the right or left according to the same principles and by the same commands.

When the battery is in echellon, marching or at a halt, it may be formed into battery to the front, rear, right or left.

When firing in echellon to the front or rear, the direction of the fire may be changed to the right or left. For this purpose the captain orders the firing to cease, and commands *action right* (or *left*).

At this command, the trails of the pieces are turned to the left (or right), and the limbers and caissons take their places in rear of the pieces. But if retiring with the prolonge fixed, the caissons stand fast, and the limbers back to allow the trails to be turned in the proper direction. The prolonge must be sufficiently slack to allow the recoil of the guns. This last method is only applicable to firing to the right when retiring by the right, and to the left when retiring by the left.

To fire to the rear.

723. When the battery is firing, to fire to the rear, the captain causes the firing to cease, and commands:

1. *Fire to the rear.* 2. *Limbers and caissons pass your pieces—trot.* 3. MARCH.

These commands are repeated by the chiefs of sections. At the command *march*, the pieces are wheeled about by turning the trails to the left; and the limbers and caissons oblique to the right, pass them, and take their places in battery by a left reverse.

In *horse artillery*, the horses follow their limbers, pass them, and take their places by wheeling about to the left.

CHANGES OF FRONT IN BATTERY.

Change of front to fire to the right, left wing forward, and the reverse.

724. When the battery is firing, if the captain wishes to make a perpendicular change of front, to fire to the right, throwing forward the left wing, he discontinues firing, and commands:

1. *Fire to the right.* 2. *Change front forward on the right piece.* 3. MARCH.

(Fig. 169.) At the second command, the chief of the right section places the right piece in the new direction, by causing the trail to be moved to the left. He also causes the left piece of his section to be moved forward by hand, and established on the new line. When the ground is unmasked, the limbers and caissons of these

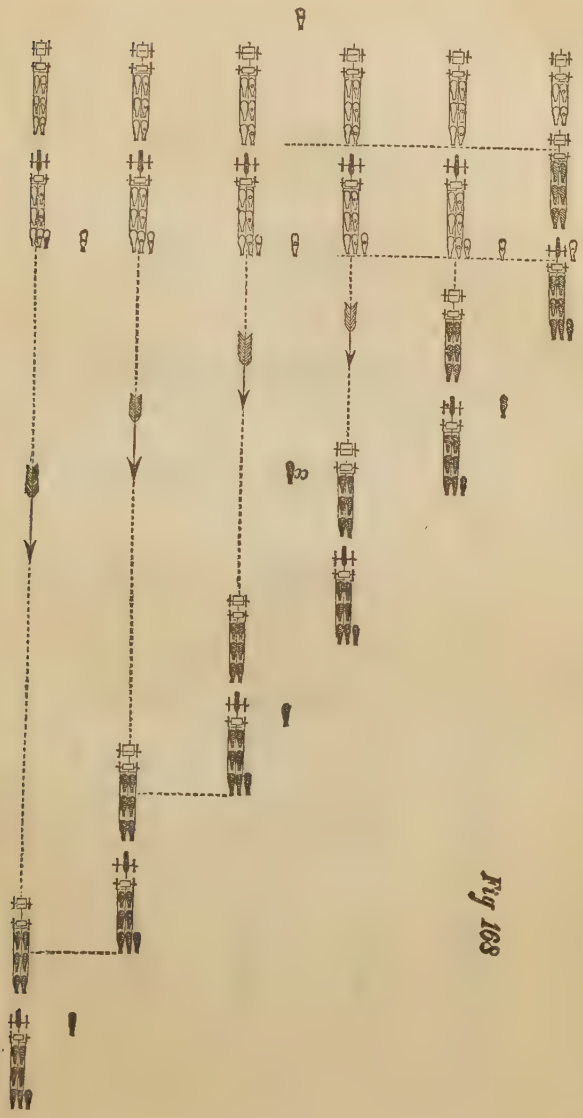

Fig 169

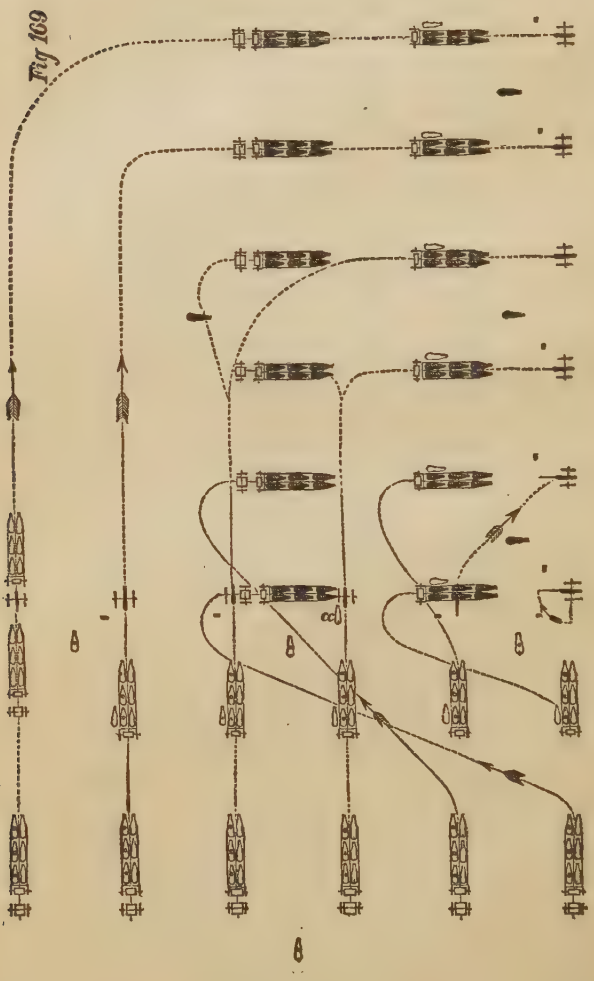
Fig 169

pieces oblique to the left, move forward, and take their places in battery by wheeling to the right; the caissons aligning themselves by the chief of the line of caissons established on the right.

The other chiefs of sections cause their pieces to be limbered by the command, *limber to the front;* the caissons, and in *horse artillery* the horse holders, also, closing upon the pieces while they are limbering. As soon as they are limbered, the chiefs of sections command, *forward.*

At the second command, the chief of the line of caissons places himself on the left of the right piece of the centre section, facing to the front, to mark the right of the new line of caissons.

At the command *march,* repeated by the chiefs of the centre and left sections, these sections move to the front; and, when each has arrived opposite its place on the new line, its chief commands; *section — right wheel; march; forward;* and afterwards, *in battery — march,* so as to form upon the alignment of the right section. When the caisson of the right piece of the centre section reaches the point where its piece wheeled, it wheels to the left, takes its distance in rear, wheels about and dresses to the right upon the line of caissons.

The other caisson of the same section obliques to the left when its piece commences the wheel; and, after gaining its distance establishes itself on the line by wheeling and dressing to the right.

The pivot piece commences firing again, as soon as it is in position, and the others as they arrive on the line.

The change of front to fire to the left, right wing forward, is executed according to the same principles and by inverse means.

In *horse artillery,* the detachments follow their pieces and halt at their proper distance from the line. That of the left piece of the right section, when limbered, wheels to the left when its piece wheels to the right, allows its caisson to pass it, and takes its place by wheeling about to the left. The horse holders of the pieces not limbered, oblique to the left, with their limbers, and, like them, take their places in battery by wheeling to the right. When it is deemed advisable, the captain may retain the cannoneers at their pieces, and allow all the horse holders to conduct their horses to the new line. The same may be done in the other changes of front.

Change of front to fire to the left, left wing forward, and the reverse.

725. When the battery is firing, if the captain wishes to make a perpendicular change of front to fire to the left, throwing forward the left wing, he discontinues firing and commands:

1. *Fire to the left.* 2. *Change front forward on the right piece.* 3. MARCH.

(Fig. 170.) At the second command, the chief of the right section causes the right piece to be placed in the new direction at once, by moving the trail to the right; and the limber and caisson of that piece will oblique to the right, and take their places in its rear by wheeling to the left; the caisson dressing upon the chief of the line of caissons. He also causes his left piece to be moved to its place and established on the line by hand; the limber of this piece, passing it on the right, takes its place by wheeling to the left, its caisson obliques to the right, passes on the right, and in rear of the right caisson, and takes its place also by wheeling to the left.

The chiefs of the other sections cause them to be limbered to the front; and while limbering they command, *caissons pass your pieces —trot; march.* When this is executed the chief of the centre section commands *section — right wheel,* and that of the left *forward.*

At the command *march,* repeated by the chiefs of the centre and left sections, these sections move as ordered, with the caissons leading. The centre section is conducted to the line by its chief and formed by the commands, *forward* and *in battery.* The left section advances five yards and is conducted to the line by two successive right half wheels. It is there formed in like manner upon the alignment of the right section.

At the second command from the captain, the chief of the line of caissons places himself in prolongation of the line, thirty-two yards on the right of the right piece, and faces to the front, to mark the left of the new line of caissons.

The pivot piece recommences firing as soon as it is unmasked; and the others when they arrive on the line.

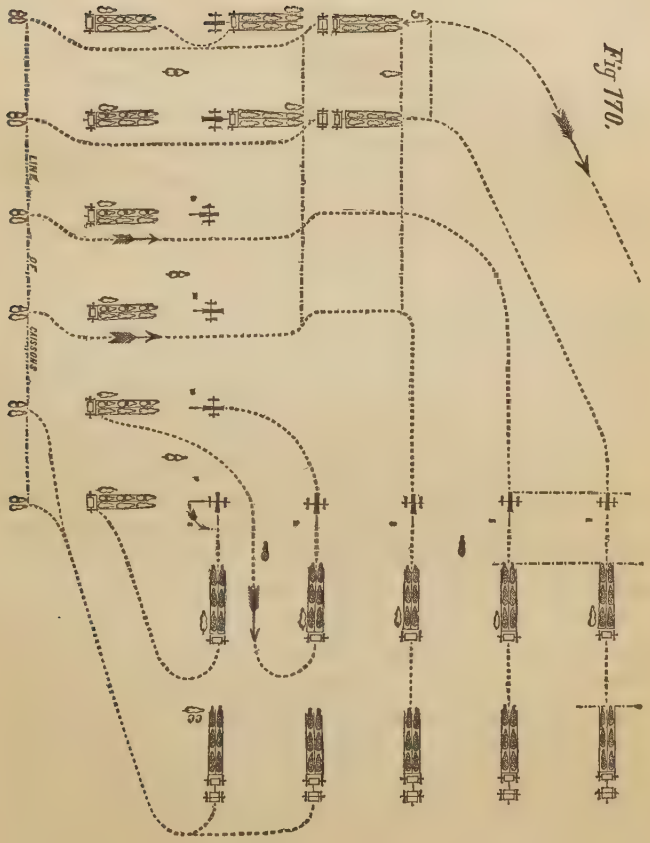

Fig 170.

The change of front to fire to the right, right wing forward, is executed according to the same principles and by inverse means.

In *horse artillery*, the horse holders of those pieces, which are placed on the line by hand, conduct the horses to their positions in battery by following their limbers.

Change of front to fire to the left, left wing to the rear, and the reverse.

726. When the battery is firing, if the captain wishes to make a perpendicular change of front to fire to the left, throwing the left wing to the rear, he causes the firing to cease, and commands:

1. *Fire to the left.* 2. *Change front to the rear on the right piece.* 3. MARCH.

At the second command, the chief of the right section places the right piece in the new direction, by causing the trail to be moved to the right. He also causes the left piece of his section to be moved to the rear by hand, and established on the new line. The limbers and caissons of these pieces move at once to the right, obliquing sufficiently to place themselves in rear of their respective pieces, and take their places by wheeling to the left or left about.

The other chiefs of sections command, *limber to the rear*, and immediately afterwards, *caissons in front of your pieces — trot; march.* The caissons place themselves in front of their pieces, while they are limbering, and halt as prescribed in No. 707. The chiefs of these sections then command, *forward.*

The chief of the line of caissons places himself in the prolongation of the line, thirty-two yards on the right of the right piece, and faces to the rear to mark the right of the new line of caissons.

At the command *march*, given by the captain, and repeated by the chiefs of the centre and left sections, the chiefs of these sections command, *guide left*, and afterwards in succession, *section — left wheel; march; forward; in battery.* The carriages dress towards the pivot as they arrive on the line.

The pivot piece recommences firing as soon as it is unmasked; and the others when they arrive on the line.

The change of front to fire to the right, right wing to the rear, is executed according to the same principles and by inverse means.

In *horse artillery*, the detachments pass their pieces at the command *march*, place themselves two yards in rear of the muzzles, follow them, and, at the command *in battery*, take their places. The horse holders of those pieces which are moved by hand, follow their limbers and conduct the horses to their positions, by movements corresponding to those of their caissons. When the left piece of the right section is limbered, the horses of the detachment are conducted to their places in the same manner as though the piece were unlimbered, except that the detachment mounts.

Change of front to fire to the right, left wing to the rear, and the reverse.

727. When the battery is firing, if the captain wishes to make a perpendicular change of front to fire to the right, throwing the left wing to the rear, he discontinues firing and commands:

1. *Fire to the right.* 2. *Change front to the rear on the right piece.* 3. MARCH.

At the second command, the chief of the right section commands, *limbers and caissons in rear of your pieces — trot; march.* The limbers and caissons oblique to the right, and pass their pieces with the limbers leading. As soon as the limbers have passed, they wheel twice to the left and cover their pieces. The caissons pass their limbers and cover them in like manner. The chief of the section causes the trail of his right piece to be moved to the left, and his left piece to be placed upon the new alignment by hand.

The chiefs of other sections command, *limber to the rear*, and *caissons in rear of your pieces — trot; march.* When this is executed they command *forward.*

At the second command, the chief of the line of caissons places himself on the left of the right piece of the centre section, facing to the rear, to mark the left of the new line of caissons.

At the command *march* from the captain, repeated by the chiefs of the centre and left sections, those sections, as well as the limbers

and caissons of the first, are established upon the new line as described in No. 724.

The pivot piece recommences firing as soon as it is placed in the new direction; and the others as they arrive on the line.

The change of front to fire to the left, right wing to the rear, is executed according to the same principles and by inverse means.

In *horse artillery*, the mounted detachments pass their pieces with the caissons at the command *march*, and take their places in rear of the muzzles by successive wheels to the left. The horse holders of the pieces which are moved by hand follow their limbers and wheel into their places in like manner. The remainder is executed as in No. 724.

To pass a defile in front.

728. When the battery is firing, to pass a defile in front of the right section, the captain commands:

1. *To the front — by the right section — pass the defile.* 2. MARCH.

At the first command, the chief of the right section discontinues firing, limbers his pieces to the front, and commands, *forward*. At the command *march*, repeated by this chief, who also commands, *guide left*, the section moves forward, passes the defile, and is again established in battery, and the firing commenced by his command.

As soon as the right section commences firing, the centre is put in motion in like manner. Its chief conducts it through the defile by successive wheels, and forms it into battery in line with the first.

As soon as the centre section commences firing, the left passes in like manner.

While one section is passing the defile, the others continue firing; care being taken not to injure the section in advance.

When the defile is in front of the left section, it is passed according to the same principles, commencing with that section.

When the defile is in front of the centre section, it is passed according to the same principles, commencing with that section, and by the commands, *to the front—by the centre section—pass the defile; march.* Unless there is some reason to the contrary, the right section will pass before the left.

When the flank or oblique march is better suited to the nature of the ground, the chiefs of sections will give the required commands.

When the defile will admit but one piece at a time, the sections are broken by their chiefs in such a manner, as to cause the nearest piece to enter first. The sections are re-formed by their chiefs immediately after passing the defile.

To pass a defile in rear.

729. When the battery is firing, to pass a defile in rear of the centre section, the captain commands:

1. *To the rear — by the right section — pass the defile.* 2. MARCH.

At the first command, the chief of the right section discontinues firing, limbers to the rear, and commands, *caissons left about — pieces forward.* At the command *march*, repeated by the chief of the right section, the caissons of that section execute the about, and the pieces close to their proper distance at a trot. As soon as the about is completed, the chief commands *forward — guide left*, conducts the section through the defile by successive wheels, and forms it into battery in rear of its first position.

The left section is put in motion as soon as the right commences firing. It is conducted through the defile by its chief, and formed into battery in rear of its first position, by the principles already described.

The centre section moves as soon as the left commences firing. It is formed into battery in rear of its first position, and in line with the other two sections.

The passage of the defile may be executed, commencing with the left section, according to the same principles and by inverse means.

When the defile is in rear of one of the flanks, the movement should commence with the other. It should always end by passing the section or piece covering the defile.

When the defile will admit but one piece at a time, the sections are broken by their chiefs in such a manner as to cause the piece farthest from the defile to enter first; and the sections are again formed, as soon as possible after leaving the defile.

ARTICLE XII.

HONORS PAID BY THE TROOPS — INSPECTIONS — REVIEWS, ETC.

HONORS TO BE PAID BY THE TROOPS.

730. Whenever a person entitled to compliments from the troops, visits any camp or military post, and the commanding officer has official notice of his presence, the troops are paraded to salute him.

The *President* or *Vice-President* of the United States and the *Governor* of the State to which the troops belong, are to be saluted with the highest honors — all standards and colors drooping, officers and troops saluting, drums beating and trumpets sounding.

A *General commanding-in-chief* is to be received—by cavalry, with sabres presented, trumpets sounding the march, and all the officers saluting, standards dropping; by infantry, with drums beating the march, colors dropping, officers saluting and arms presented.

A *Major-General* is to be received — by cavalry, with sabres presented, trumpets sounding twice the trumpet-flourish, and officers saluting; by infantry, with three ruffles, colors dropping, officers saluting, and arms presented.

A *Brigadier-General* is to be received — by cavalry, with sabres presented, trumpets sounding once the trumpet-flourish, and officers saluting; by infantry, with two ruffles, colors dropping, officers saluting, and arms presented.

An *Adjutant-General* or *Inspector-General*, if under the rank of a general officer, is to be received at a review or inspection of the troops under arms — by cavalry, with sabres presented, officers saluting; by infantry, officers saluting and arms presented. The

same honors to be paid to any field officer authorized to review and inspect the troops. When the inspecting officer is junior to the officer commanding the parade, no compliments will be paid: he will be received only with swords drawn and arms shouldered.

All guards are to turn out and present arms to *general officers* as often as they pass them, except the personal guards of general officers, which turn out only to the generals whose guards they are, and to officers of superior rank.

To commanders of regiments, garrison, or camp, their own guard turn out, and present arms once a day; after which, they turn out with shouldered arms.

To the Members of the Cabinet; to the Chief Justice, the President of the Senate, and Speaker of the House of Representatives of the United States; and to Governors within their respective States and Territories, the same honors will be paid as to a general commanding-in-chief.

Officers of a foreign service may be complimented with the honors due to their rank.

American and Foreign Envoys or Ministers will be received with the compliments due to a major-general.

731. The colors of a regiment passing a guard are to be saluted, the trumpets sounding, and the drums beating a march.

When general officers, or persons entitled to salute, pass in the rear of a guard, the officer is only to make his men stand shouldered, and not to face his guard about, or beat his drum.

When general officers, or persons entitled to a salute, pass guards while in the act of relieving, both guards are to salute, receiving the word of command from the senior officer of the whole.

All guards are to be under arms when armed parties approach their posts; and to parties commanded by commissioned officers, they are to present their arms, drums beating a march, and officers saluting.

No compliments by guards or sentinels will be paid between *retreat* and *reveille,* except as prescribed for *grand rounds.*

All guards and sentinels are to pay the same compliments to the officers of the navy, marines, and militia, in the service of the

United States, as are directed to be paid to the officers of the army, according to their relative ranks.

It is equally the duty of non-commissioned officers and soldiers, *at all times* and *in all situations*, to pay the proper compliments to officers of the navy and marines, and to officers of other regiments, when in uniform, as to officers of their own particular regiments and corps.

Courtesy among military men is indispensable to discipline. Respect to superiors will not be confined to obedience on duty, but will be extended to all occasions. It is always the duty of the inferior to accost or to offer first the customary salutation, and of the superior to return such complimentary notice.

Sergeants, with swords drawn, will salute by bringing them to a present; with muskets, by bringing the left hand across the body, so as to strike the musket near the right shoulder. Corporals out of the ranks, and privates not sentries, will carry their muskets at a shoulder as sergeants, and salute in like manner.

When a soldier without arms, or with side-arms only, meets an officer, he is to raise his hand to the right side of the visor of his cap, palm to the front, elbow raised as high as the shoulder, looking at the same time in a respectful and soldier-like manner at the officer, who will return the compliment thus offered.

A non-commissioned officer or soldier being seated, and without particular occupation, will rise on the approach of an officer, and make the customary salutation. If standing, he will turn toward the officer for the same purpose. If the parties remain in the same place or on the same ground, such compliment need not be repeated.

Artillery Salutes.

732. The *President of the United States* and the *Governor* of the State to which the troops belong, to receive a salute of twenty-one guns.

The *Vice-President* is to receive a salute of seventeen guns.

The *Heads of the great Executive Departments of the National Government;* the *General commanding the army;* the *Lieutenant-*

Governor of the State to which the troops belong; the *Governors of other States and Territories,* fifteen guns.

A *Major-General,* thirteen guns.

A *Brigadier-General,* eleven guns.

Foreign ships-of-war will be saluted in return for a similar compliment, gun for gun, on notice being officially received of such intention. If there be several posts in sight of, or within six miles of each other, the principal only shall reciprocate compliments with ships passing.

Officers of the Navy will be saluted according to relative rank.

Foreign Officers invited to visit a fort or post may be saluted according to their relative rank.

Envoys and Ministers of the United States and foreign Powers are to be saluted with thirteen guns.

A general officer will be saluted but once in a year at each post, and only when notice of his intention to visit the post has been given.

Salutes to individuals are to be fired on their arrival only.

A national salute will be fired at meridian on the anniversary of the Independence of the United States, at each military post and camp provided with artillery and ammunition.

Escorts of Honor.

733. Escorts of honor may be composed of cavalry or infantry, or both, according to circumstances. They are guards of honor for the purpose of receiving and escorting personages of high rank, civil or military. The troops for this purpose, will be selected for their soldierly appearance and superior discipline.

The escort will be drawn up in line, the centre opposite to the place where the personage presents himself, with an interval between the wings to receive him and his retinue. On his appearance, he will be received with the honors due to his rank. When he has taken his place in the line, the whole will be wheeled into platoons or companies, as the case may be, and take up the march. The same ceremony will be observed, and the same honors paid, on his leaving the escort.

When the position of the escort is at a considerable distance from the point where he is expected to be received, as, for instance, where a court-yard or wharf intervenes, a double line of sentinels will be posted from that point to the escort, facing inward, and the sentinels will successively salute as he passes.

An officer will be appointed to attend him, to bear such communications as he may have to make to the commander of the escort.

Funeral Honors.

734. The funeral escort of a *General commanding-in-chief*, shall consist of a regiment of infantry, a squadron of cavalry, and six pieces of artillery.

That of a *Major-General*, a regiment of infantry, a squadron of cavalry, and four pieces of artillery.

That of a *Brigadier-General*, a regiment of infantry, one company of cavalry, and two pieces of artillery.

That of a *Colonel*, a regiment.

That of a *Lieutenant-Colonel*, six companies.

That of a *Major*, four companies.

That of a *Captain*, one company.

That of a *Subaltern*, half a company.

The funeral escort shall always be commanded by an officer of the same rank with the deceased; or, if none such be present, by one of the next inferior grade.

The funeral escort of a non-commissioned staff officer shall consist of sixteen rank and file, commanded by a sergeant.

That of a sergeant, of fourteen rank and file, commanded by a sergeant.

That of a corporal, of twelve rank and file, commanded by a corporal; and,

That of a private, of eight rank and file, commanded by a corporal.

The escort will be formed in two ranks, opposite to the quarters or tent of the deceased, with shouldered arms and bayonets unfixed; the artillery and cavalry on the right of the infantry.

On the appearance of the corpse, the officer commanding the escort will command:

Present — ARMS;

when the honors due to the deceased will be paid by the drums and trumpets. The music will then play an appropriate air, and the coffin will then be taken to the right, where it will be halted. The commander will next order:

1. *Shoulder* — ARMS. 2. *By company* (or *platoon*), *left wheel.* 3. MARCH. 4. *Reverse*—ARMS. 5. *Column, forward.* 6. *Guide right.* 7. MARCH.

The arms will be reversed at the order by bringing the firelock under the left arm, butt to the front, barrel downward, left hand sustaining the lock, the right steadying the firelock behind the back; swords are reversed in a similar manner under the right arm.

The column will be marched in slow time to solemn music, and, on reaching the grave, will take a direction so that the guides shall be next to the grave. When the centre of the column is opposite the grave, the commander will order:

1. *Column.* 2. HALT. 3. *Right into line, wheel.* 4. MARCH.

The coffin is then brought along the front, to the opposite side of the grave, and the commander then orders:

1. *Shoulder* — ARMS. 2. *Present* — ARMS.

And when the coffin reaches the grave, he adds:

1. *Shoulder* — ARMS. 2. *Rest on* — ARMS.

The rest on arms is done by placing the muzzle on the left foot, both hands on the butt, the head on the hands or bowed, right knee bent.

After the funeral service is performed, and the coffin is lowered into the grave, the commander will order:

1. *Attention.* 2. *Shoulder* — ARMS. 3. *Load at will.* 4. LOAD.

When three rounds of small arms will be fired by the escort, taking care to elevate the pieces.

This being done, the commander will order:

1. *By company* (or *platoon*), *right wheel.* 2. MARCH. 3. *Column, forward.* 4. *Guide left.* 5. *Quick* — MARCH.

The music will not begin to play until the escort is clear of the inclosure.

When the distance to the place of interment is considerable, the escort may march in common time and in column of route, after leaving the camp or garrison, and till it approaches the burial-ground.

The pall-bearers, six in number, will be selected from the grade of the deceased, or from the grade or grades next above or below it.

At the funeral of an officer, as many in commission of the army, division, brigade, or regiment, according to the rank of the deceased, as can conveniently be spared from other duties, will join in procession, in uniform, and with side-arms. The funeral of a non-commissioned officer or private will be attended, in like manner, by the non-commissioned officers or privates of the regiment or company, according to the rank of the deceased, with side-arms only.

Persons joining in the procession follow the coffin in the inverse order of their rank.

The usual badge of military mourning is a piece of black crape around the left arm, above the elbow, and also upon the sword-hilt; and will be worn when in full or in undress.

As family mourning, crape will be worn by officers (when in uniform) only around the left arm.

The drums of a funeral escort will be covered with black crape, or thin black serge.

Funeral honors will be paid to deceased officers without military rank according to their assimilated grades.

INSPECTIONS OF THE TROOPS.

735. The inspection of troops, as a division, regiment, or other body composing a garrison or command, not less than a company, will generally be preceded by a review.

Form of inspection for infantry.

The present example embraces a battalion of infantry. The inspecting officer and the field and staff officers will be on foot.

The battalion being in the order of battle, the colonel will cause it to break into open column of companies, right in front. He will next order the ranks to be opened, when the color-rank and color-guard, under the direction of the adjutant, will take post ten paces in front, and the band ten paces in rear of the column.

The colonel, seeing the ranks aligned, will command,

1. *Officers and sergeants, to the front of your companies.* 2. MARCH.

The officers will form themselves in one rank, eight paces, and the non-commissioned officers in one rank, six paces, in advance, along the whole fronts of their respective companies, from right to left, in the order of seniority; the pioneers and music of each company, in one rank, two paces behind the non-commissioned officers.

The colonel will next command:

Field and staff, to the front — MARCH.

The commissioned officers thus designated will form themselves in one rank, on a line equal to the front of the column, six paces in front of the colors, from right to left, in the order of seniority; and the non-commissioned staff, in a similar manner, two paces in rear of the preceding rank. The colonel, seeing the movement executed, will take post on the right of the lieutenant-colonel, and wait the approach of the inspecting officer. But such of the field officers as may be superior in rank to the inspector will not take post in front of the battalion.

The inspector will commence in front. After inspecting the dress and general appearance of the field and commissioned staff under arms, the inspector, accompanied by these officers, will pass down the open column, looking at every rank in front and rear.

The colonel will now command:

1. *Order arms.* 2. REST;

when the inspector will proceed to make a minute inspection of the several ranks or divisions, in succession, commencing in front.

As the inspector approaches the non-commissioned staff, color-rank, the color-guard, and the band, the adjutant will give the necessary orders for the inspection of arms, boxes, and knapsacks. The colors will be planted firm in the ground, to enable the color-bearers to display the contents of their knapsacks. The non-commissioned staff may be dismissed as soon as inspected; but the color-rank and color-guard will remain until the colors are to be escorted to the place from which they were taken.

As the inspector successively approaches the companies, the captains will command:

1. *Attention.* 2. *Company.* 3. *Inspection* — ARMS.

The inspecting officer will then go through the whole company, and minutely inspect the arms, accoutrements, and dress of each soldier. After this is done, the captain will command:

Open — BOXES;

when the ammunition and the boxes will be examined.

The captain will then command:

1. *Shoulder* — ARMS. 2. *Close order.* 3. MARCH. 4. *Order* — ARMS. 5. *Stack* — ARMS. 6. *To the rear open order.* 7. MARCH. 8. *Front rank* — ABOUT — FACE. 9. *Unsling* — *Knapsacks.* 10. *Open* — *Knapsacks.*

The sergeants will face inward at the second command, and close upon the centre at the third, and stack their arms at the fifth command; at the sixth command they face outward, and resume their positions at the seventh. When the ranks are closed, preparatory to *take arms*, the sergeants will also close upon the centre, and at the word, take their arms and resume their places.

The knapsacks will be placed at the feet of the men, the flaps from them, with the great-coats on the flaps, and the knapsacks leaning on the great-coats. In this position the inspector will examine their contents, or so many of them as he may think neces-

sary, commencing with the non-commissioned officers, the men standing at attention.

When the inspector has passed through the company, the captain will command:

Repack — Knapsacks;

when each soldier will repack and buckle up his knapsack, leaving it on the ground, the number upward, turned from him, and then stand at rest.

The captain will then command:

1. *Attention.* 2. *Company.* 3. *Sling — Knapsacks.*

At the word *sling*, each soldier will take his knapsack, holding it by the inner straps, and stand erect; at the last word he will replace it on his back. The captain will continue:

4. *Front rank* — ABOUT — FACE. 5. *Close order.* 6. MARCH. 7. *Take* — ARMS. 8. *Shoulder* — ARMS. 9. *Officers and Sergeants to your posts.* 10. MARCH.

And will cause the company to file off to their tents or quarters, except the company that is to re-escort the colors, which will await the further orders of the colonel.

In an extensive column, some of the rearmost companies may, after the inspection of dress and general appearance, be permitted to *stack arms* until just before the inspector approaches them, when they will be directed to *take arms* and resume their position.

The inspection of the troops being ended, the field and staff will next accompany the inspector to the hospital, magazine, arsenal, quarters, sutler's shop, guard-house, and such other places as he may think proper to inspect. The captains and subalterns repair to their companies and sections to await the inspector.

The hospital being at all times an object of particular interest, it will be critically and minutely inspected.

The men will be formed in the company quarters in front of their respective bunks, and on the entrance of the inspector the word *attention* will be given by the senior non-commissioned officer present, when the whole will salute with the hand, without uncovering.

The inspector, attended by the company officers, will examine the general arrangement of the interior of the quarters, the bunks, bedding, cooking, and table utensils, and such other objects as may present themselves; and afterwards the exterior.

The adjutant will exhibit to the inspector the regimental books and papers, including those relating to the transactions of the Council of Administration. The company books and papers will also be exhibited, the whole together, generally at the adjutant's office, and in the presence of the officers not otherwise particularly engaged.

The inspector will examine critically the books and accounts of the administrative and disbursing officers of the command, and the money and property in their keeping.

Inspection of Cavalry.

736. The regiment being in line as prescribed for a review, the colonel causes the companies to wheel to the right. He then orders the ranks to be opened; at which the standard-bearer, under the direction of the adjutant, is posted about twenty paces ahead of the column.

The colonel seeing the ranks aligned, commands: 1. *Officers and non-commissioned officers.* 2. *To the front of your companies* — MARCH; on which the officers form themselves in one rank, twelve paces, and the non-commissioned officers in one rank, six paces, in advance, along the whole front of their respective troops, in the order of rank, the highest on the right, and the lowest on the left; the trumpeters of each company, at the same time, take post on the alignment of the front rank, six paces from the right.

Seeing the last order in a train of execution, the colonel commands: 1. *Field and staff.* 2. *To the front* — MARCH. The commissioned officers thus designated, form themselves in one rank, twelve paces in front of the standards, in the following order, beginning on the right; lieutenant-colonel, major, adjutant, quartermaster, etc. The non-commissioned staff in a similar manner, six paces in rear of the preceding rank. The band is formed in one rank, ten paces in rear of the column, the chief musician four paces in front of it.

The colonel, if a higher officer inspects the column, now takes his post on the right of the lieutenant-colonel.

The inspection commences in front. After inspecting the dress and general appearance of the field and commissioned staff, the inspector, accompanied by these officers, passes down the column, looking at every rank, in front and in rear, with a view to the same object. He afterwards, in a like manner, passes and inspects the arms. As he successively approaches each company for this purpose, its captain commands: 1. *Attention.* 2. *Inspection of* — ARMS.

The inspector then dismounts with the field and commissioned staff, for the purpose of inspecting horse furniture, and valises, preparatory to which, the colonel causes the column to dismount. The men being then in the position of *stand to horse,* the colonel commands *rest,* for the whole column; when the inspector proceeds to make a minute inspection of the several ranks, in succession, commencing in front.

On approaching the non-commissioned staff and the band, the adjutant gives the necessary orders for the inspection of boxes and valises; and in like manner as to the standard-bearer. The non-commissioned staff may be dismounted as soon as inspected.

As the inspector successively approaches the companies, each captain commands: 1. *Attention.* 2. *Unstrap valises.* 3. *Open boxes;* when the valises are placed at the feet of the men, with the flaps from them. In this position the inspector may examine the contents of the whole, boxes and valises, or of as many as he may think necessary.

As the inspector passes each company, the captain orders the valises to be re-packed and re-strapped, and the men to file off to their tents or quarters, except the company which is to escort the standard, which awaits the orders of the colonel.

FORMS OF PARADE.

737. On all parades of ceremony, such as Reviews, Guard-mounting, at *Troop* or *Retreat* parades, instead of the word *rest*, which allows the men to move or change the position of their bodies, the command will be *parade — rest.* At the last word of this com-

mand, the soldier will carry the right foot six inches in rear of the left heel, the left knee slightly bent, the body upright upon the right leg; the musket resting against the hollow of the right shoulder, the hands crossed in front, the backs of them outward, and the left hand uppermost. At the word *attention*, the soldier will resume the correct position at ordered arms. In the positions here indicated, the soldier will remain silent and motionless; and it is particularly enjoined upon all officers to cause the commands above given, on the part of the soldier, to be executed with great briskness and spirit.

Officers on all duties under arms are to have their swords drawn, without waiting for any words of command for that purpose.

Dress parade.

738. There shall be daily one dress parade, at *troop* or *retreat*, as the commanding officer may direct.

A signal will be beat or sounded half an hour before *troop* or *retreat*, for the music to assemble on the regimental parade, and each company to turn out under arms on its own parade, for roll-call and inspection by its own officers.

Ten minutes after that signal, the *Adjutant's call* will be given, when the captains will march their companies (the band playing) to the regimental parade, where they take their positions in line as directed, No. 297. When the line is formed, the captain of the first company, on notice from the adjutant, steps one pace to the front, and gives to his company the command, *order arms; parade; rest;* which is repeated by each captain in succession to the left. The adjutant takes post two paces on the right of the line; the sergeant-major two paces on the left. The music will be formed in two ranks on the right of the adjutant. The senior officer present will take the command of the parade, and will take post at a suitable distance in front, opposite the centre, facing the line.

When the companies have ordered arms, the adjutant will order the music to *beat off*, when it will commence on the right, beat in front of the line to the left, and back to its place on the right.

When the music has ceased, the adjutant will step two paces to the front, face to the left, and command:

1. *Attention.* 2. *Battalion.* 3. *Shoulder* — ARMS. 4. *Prepare to open ranks.* 5. *To the rear open order.* 6. MARCH.

At the sixth command, the ranks will be opened according to the system laid down in the Infantry Tactics, the commissionod officers marching to the front, the company officers four paces, field officers six paces, opposite to their positions in the order of battle, where they will halt and dress. The adjutant, seeing the ranks aligned, will command:

FRONT,

and march along the front to the centre, face to the right, and pass the line of company officers eight or ten paces, when he will come to the right about, and command:

Present — ARMS;

when arms will be presented, officers saluting.

Seeing this executed, he will face about to the commanding officer, salute, and report, *"Sir, the parade is formed."* The adjutant will then, on intimation to that effect, take his station three paces on the left of the commanding officer, one pace retired, passing round his rear.

The commanding officer, having acknowledged the salute of the line by touching his hat, will, after the adjutant has taken his post, draw his sword, and command:

1. *Battalion.* 2. *Shoulder* — ARMS;

and add such exercises as he may think proper, concluding with:

Order — ARMS;

then return his sword, and direct the adjutant to receive the reports

The adjutant will now pass round the right of the commanding officer, advance upon the line, halt midway between him and the line of company officers, and command:

1. *First sergeants, to the front and centre.* 2. MARCH.

At the first command, they will *shoulder arms* as sergeants, march two paces to the front, and face inward. At the second command, they will march to the centre, and halt. The adjutant will then order:

1. *Front* — FACE. 2. *Report.*

At the last word, each in succession, beginning on the right, will salute by bringing the left hand smartly across the breast to the right shoulder, and report the result of the roll-call previously made on the company parade.

The adjutant again commands:

1. *First sergeants, outward* — FACE. 2. *To your posts* — MARCH;

when they will resume their places, and order arms. The adjutant will now face to the commanding officer, salute, report absent officers, and give the result of the first sergeant's reports. The commanding officer will next direct the orders to be read, when the adjutant will face about, and announce:

Attention to Orders.

He will then read the orders.

The orders having been read, the adjutant will face to the commanding officer, salute, and report; when, on an intimation from the commander, he will face again to the line, and announce:

Parade is dismissed.

All the officers will now return their swords, face inward, and close on the adjutant, he having taken position in their line, the field officers on the flanks. The adjutant commands:

1. *Front* — FACE. 2. *Forward* — MARCH;

when they will march forward, dressing on the centre, the music playing, and when within six paces of the commander, the adjutant will give the word:

HALT.

The officers will then salute the commanding officer by raising the hand to the cap, and there remain until he shall have communicated to them such instructions as he may have to give, or intimates that the ceremony is finished. As the officers disperse, the first sergeants will close the ranks of their respective companies, and march them to the company parades, where they will be dismissed, the band continuing to play until the companies clear the regimental parade.

All field and company officers and men will be present at *dress parades*, unless especially excused, or on some duty incompatible with such attendance.

A dress parade once a day will not be dispensed with, except on extraordinary and urgent occasions.

Review of a battalion of infantry.

739. Preparatory to a review, the adjutant will cause a camp color to be placed 80 or 100 paces, or more, according to the length of the line, in front of, and opposite to, where the centre of the battalion will rest, where the reviewing officer is supposed to take his station; and, although he may choose to quit that position, still the color is to be considered as the point to which all the movements and formations are relative.

The adjutant will also cause points to be marked at suitable distances, for the wheelings of the divisions; so that their right flanks, in marching past, shall only be about four paces from the camp-color, where it is supposed the reviewing officer places himself to receive the salute.

The battalion being formed in the order of battle, at *shouldered arms*, the colonel will command:

1. *Battalion, prepare for review.* 2. *To the rear open order.* 3. MARCH.

At the word *march*, the field and staff officers dismount; the company officers and the color-rank advance four paces in front of the front rank, and place themselves opposite to their respective places, in the order of battle. The color-guard replace the color-rank. The staff officers place themselves, according to rank, three paces on the

right of the rank of company officers, and one pace from each other; the music takes post as at a parade. The non-commissioned staff take post one pace from each other, and three paces on the right of the front rank of the battalion.

When the ranks are aligned, the colonel will command:

FRONT;

and place himself eight paces, and the lieutenant-colonel and major will place themselves two paces, in front of the rank of company officers, and opposite to their respective places in the order of battle, all facing to the front.

When the reviewing officer presents himself before the centre, and is fifty or sixty paces distant, the colonel will face about, and command:

Present — ARMS;

and resume his front. The men present arms, and the officers salute, so as to drop their swords with the last motion of the firelock. The non-commissioned staff salute by bringing the sword to a *poise*, the hilt resting on the breast, the blade in front of the face, inclining a little outward. The music will play, and all the drums beat, according to the rank of the reviewing officer. The colors only salute such persons as, from their rank, and by regulation (see No. 730), are entitled to that honor. If the reviewing officer be junior in rank to the commandant of the parade, no compliment will be paid to him, but he will be received with arms carried, and the officers will not salute as the column passes in review.

The reviewing officer having halted, and acknowledged the salute of the line by touching or raising his cap or hat, the colonel will face about and command:

Shoulder — ARMS;

when the men shoulder their pieces; the officers and non-commissioned staff recover their swords with the last motion, and the colonel faces to the front.

The reviewing officer will then go towards the right, the whole remaining perfectly steady, without paying any further compliment,

while he passes along the front of the battalion, and proceeds round the left flank, and along the rear of the file-closers, to the right. While the reviewing officer is going round the battalion, the band will play, and will cease when he has returned to the right flank of the troops.

When the reviewing officer turns off, to place himself by the camp-color in front, the colonel will face to the line, and command:

1. *Close order.* 2. MARCH.

At the first command, the field and company officers will face to the *right about*, and at the second command, all persons, except the colonel, will resume their places in the order of battle; the field and staff officers mount.

The reviewing officer having taken his position near the camp-color, the colonel will command:

1. *By company, right wheel.* 2. *Quick* — MARCH. 3. *Pass in review.* 4. *Column, forward.* 5. *Guide right.* 6. MARCH.

The battalion, in column of companies, right in front, will then, in common time, and at *shouldered arms*, be put in motion; the colonel four paces in front of the captain of the leading company; the lieutenant-colonel on a line with the leading company; the major on a line with the rear company; the adjutant on a line with the second company; the sergeant-major on a line with the company next preceding the rear—each six paces from the flank (left) opposite to the reviewing officer; the staff officers in one rank, according to the order of precedency, from the right, four paces in rear of the column; the music, preceded by the principal musician, six paces before the colonel; the pioneers, preceded by a corporal, four paces before the principal musician; and the quartermaster-sergeant two paces from the side opposite to the guides, and in line with the pioneers.

All other officers and non-commissioned officers will march past in the places prescribed for them in the march of an open column. The guides and soldiers will keep their heads steady to the front in passing in review.

The color-bearer will remain in the ranks while passing and saluting.

The music will begin to play at the command to march, and after passing the reviewing officer, wheel to the left out of the column, and take a position opposite and facing him, and will continue to play until the rear of the column shall have passed him, when it will cease, and follow in the rear of the battalion, unless the battalion is to pass in *quick time* also, in which case it will keep its position.

The officers will salute the reviewing officer when they arrive within six paces of him, and recover their swords when six paces past him. All officers, in saluting, will cast their eyes towards the reviewing officer.

The colonel, when he has saluted at the head of the battalion, will place himself near the reviewing officer, and will remain there until the rear has passed, when he will rejoin the battalion.

The colors will salute the reviewing officer, if entitled to it, when within six paces of him, and be raised when they have passed by him an equal distance. The drums will beat a march, or ruffle, according to the rank of the reviewing officer, at the same time that the colors salute.

When the column has passed the reviewing officer, the colonel will direct it to the ground it marched from, and command:

Guide left;

in time for the guides to cover. The column having arrived on its ground, the colonel will command:

1. *Column.* 2. HALT;

form it in order of battle, and cause the ranks to be opened. The review will terminate by the whole saluting as at the beginning.

If, however, instructions have been previously given to march the troops past in *quick time* also, the colonel will, instead of changing the guides, halting the column, and wheeling it into line, as above directed, give the command:

1. *Quick time.* 2. MARCH.

In passing the reviewing officer again, no salute will be offered by either officers or men. The music will have kept its position opposite the reviewing officer, and at the last command will commence playing, and, as the column approaches, will place itself in front of, and march off with the column, and continue to play until the battalion is halted on its original ground of formation. The review will terminate in the same manner as prescribed above.[1]

The colonel will afterwards cause the troops to perform such exercises and manœuvres as the reviewing officer may direct.

When two or more battalions are to be reviewed, they will be formed in parade order, with the proper intervals, and will also perform the same movements that are laid down for a single battalion, observing the additional directions that are given for such movements when applied to the line. The brigadier-general and his staff, on foot, will place themselves opposite the centre of the brigade; the brigadier-general two paces in front of the rank of colonels; his aid two paces on his right, and one retired; and the other brigade staff officers, those having the rank of field officers, in the rank of lieutenant-colonels and majors; and those below that rank, in the rank of company officers.

In passing in review, a major-general will be four paces in front of the colonel of the leading battalion of his division; and the brigadier-general will be on the right of the colonels of the leading battalions of their brigades; staff officers on the left of their generals.

When the line exceeds two battalions, the reviewing officer may cause them to march past in quick time only. In such cases the mounted officers only will salute.

A number of companies less than a battalion will be reviewed as a battalion, and a single company as if it were with the battalion. In the latter case, the company may pass in column of platoons.

If several brigades are to be reviewed together, or in one line, this further difference will be observed: the reviewing personage,

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[1] Or the battalion may pass a third time at the double quick, and then re-form.

joined by the general of the division, on the right of his division, will proceed down the line, parallel to its front, and when near the brigadier-generals respectively, will be saluted by their brigades in succession. The music of each, after the prescribed salute, will play while the reviewing personage is in front, or in rear of it, and only then.

In marching in review, with several battalions in common time, the music of each succeeding battalion will commence to play when the music of the preceding one has ceased, in order to follow its battalion. When marching in quick time, the music will begin to play when the rear company of the preceding battalion has passed the reviewing officer.

The reviewing officer or personage will acknowledge the salute by raising, or taking off, his cap or hat, when the commander of the troops salutes him; and also when the colors pass. The remainder of the time occupied by the passage of the troops he will be covered.

Review of a Regiment of Cavalry.

740. The regiment being in line, the captains one pace in advance of the centre of their companies, the lieutenants commanding platoons one pace in advance of the centre of their platoons, the colonel commands:

1. *Attention.* 2. *Prepare for review.* 3. *Rear rank open order.* 4. MARCH. 5. *Right* — DRESS. 6. FRONT.

At the fourth command the ranks are opened, all the officers in the rank of file-closers advancing to the front, and placing themselves on the line of officers, opposite to the positions they before occupied. The staff officers place themselves on the right of the rank of company officers, according to their relative rank, one pace from each other. The quartermaster-sergeant and the sergeant-major, are on the right of the front rank of the regiment.

The colonel, lieutenant-colonel, major, and adjutant are posted as in order of battle.

The music is formed at the same time in one rank on the right of the regiment, and ten paces from it.

After the ranks are opened, the colonel commands:

1. *Attention.* 2. *Draw* — SABRE.

In this parade order, the regiment awaits the approach of the personage who is to review it; for whose guidance a camp-color will have been placed eighty or one hundred and fifty paces in front of the centre, according to the extent of the line and the plain in front of it.

When the reviewing personage is midway between the camp-color and the colonel, the latter turns his horse to the right about on his ground, and commands:

1. *Attention.* 2. *Present* — SABRE;

and resumes his proper front. The officers all salute.

When the reviewing personage, who has halted until the proper compliments are paid, advances, the colonel brings his sabre to *a carry*, turns about as before to the line, and commands:

1. *Attention.* 2. *Carry* — SABRE.

When the whole line remains perfectly steady, except the colonel, who resumes his proper front.

The reviewing personage now turns off to the right of the regiment, passes thence, in front of all the officers, to the left, around the left, and behind the rank of file-closers, to the right again. While he is passing around the regiment, no matter what his rank, the music will play; and when he turns off to take his station near the camp-color, the music will cease.

When the music ceases, the colonel turns about, and commands:

1. *Attention.* 2. *Rear rank, close order.* 3. MARCH.

At the command march, all the officers from the rank of file-closers return to their position in that rank.

The reviewing personage having taken a position near the camp-color, previously placed at a proper distance, the colonel causes the regiment to break into column of companies, right in front, and commands:

Pass in review.

At this command the band and trumpeters repair to the head of the regimental column, six paces in front of the colonel. The quartermaster-sergeant places himself ten paces in front of the colonel, two paces from the flank opposite to the guides.

The quartermaster, surgeon, etc., in one rank, in the order in which they are named, four paces in rear of the last division.

The colonel is six paces in front of the captain of the leading company.

The lieutenant-colonel on a line with the first company, six paces from the flank opposite to the guide.

The major on a line with the last company, six paces from the side opposite to the guide.

The adjutant on a line with the second company, six paces from the flank opposite to the guide.

The sergeant-major on a line with the company next to the rear, six paces from the flank opposite to the guide.

Captains, two paces in advance of the centre of their companies.

Chiefs of platoons, two paces in advance of the centre of their platoons.

Officers of the rank of file-closers, on the side opposite the guide, on a line with the chiefs of platoons.

The column is then put in march, at a walk, with the guide on the side next to the reviewing personage.

The column first passes at a walk, and afterwards, if required, at a trot.

When the head of the column arrives within fifty paces of the reviewing personage, the music commences to play.

The band having passed, the chief musician causes it to wheel out of the column and take position opposite to the reviewing personage; the music continues to play until the last company has passed, when it ceases, and follows in the rear.

Passing at a walk, all the officers salute with the sabre as they successively arrive within six paces of the reviewing personage, turning their heads towards him.

If more than one regiment passes, the different regiments will march with intervals of about forty paces between them.

Review of a battery of artillery.

741. The battery being in line with the trumpeters on the right, the captain commands:

1. *Attention.* 2. *Prepare for review.* 3. *To the rear open order,* 4. MARCH. 5. *Right* — DRESS. 6. FRONT.

At the third command, the chief of the line of caissons commands, *caissons—left reverse,* and places himself on the right flank sixteen yards in rear of the line of pieces, facing to the left, to mark the point where the right of the line of caissons is to rest. In horse artillery the distance is twenty yards.

At the same command, the gunners face the detachments to the rear in foot artillery, by the command *about—face;* and in horse artillery, they command, *backward.*

At the command *march,* repeated by the chief of the line of caissons, the caissons reverse to the left, move to the rear, reverse again to the left, and align themselves by appropriate commands from the chief of the line of caissons. As soon as the ground is unmasked, the gunners repeat the command *march,* at which the cannoneers in foot artillery march forward, and are formed six yards in rear of their pieces; the chiefs of caissons joining their detachments at the same time. In horse artillery the cannoneers rein back and are halted by the gunners at the same distance.

At the fifth command the battery is aligned; the pieces and detachments by the captain, and the caissons by the chief of the line of caissons. At the sixth command, given by the captain when the alignment is completed, the chief of the line of caissons takes his post as in line. The captain then commands:

Draw — SWORDS.

This is executed by the officers, non-commissioned officers, and detachments only, and the captain takes his post as in line.

In this order the battery awaits the approach of the reviewing officer. When he is midway between the camp color and the captain, the latter turns his horse to the right about and commands:

Present — SWORDS.

He immediately resumes his front and salutes. The officers, non-commissioned officers, and detachments, all salute as in cavalry; and the music plays according to the rank of the reviewing officer.

The reviewing officer having halted and acknowledged the salute, the captain brings his sword to a carry, turns about to the line as before, and commands:

Carry — SWORDS.

He immediately resumes his front, the reviewing officer turns off to the right of the battery, passes along its front, and returns to the right by passing between the lines of carriages or in rear of the caissons. While the reviewing officer is passing around the battery, the music plays. It ceases when he turns off to take his post at the camp color.

When the music ceases, the captain turns about and commands:

1. *Detachments.* 2. *Return* — SWORDS. 3. *Battery.* 4. *Close order.* 5. MARCH.

In horse artillery the first and second commands are not given.

At the fourth command, the gunners in foot artillery command, *left — face*, and in horse artillery, *forward.*

At the command *march*, repeated by the gunners, the cannoneers in mounted artillery take their posts as prescribed in the school of the piece. The caissons, and in horse artillery the cannoneers, close to their proper distances in line.

The reviewing officer having taken a position near the camp color, the captain causes the cannoneers to mount, if in foot artillery, and breaks the battery into column of sections to the right by the usual commands. He then commands:

Pass in review;

and puts the column in march, at a walk, with the guide to the right. The captain then places himself at the head of the column, four yards in advance of the chief of the leading section. The

trumpeters march four yards in advance of the captain; and the chief of the line of caissons outside the column, opposite the centre, and four yards from the left flank.

When the head of the column has arrived within forty yards of the reviewing officer, the music begins to play; and as soon as the latter has passed, it wheels out of the column to a position in front of the reviewing officer, where it faces him, and continues to play until the column has passed. It then ceases, follows in rear of the battery, and resumes its place at the head of the column after the next change of direction.

All the officers salute in succession as they arrive within six yards of the reviewing officer; casting their eyes towards him at the same time, and bringing their swords to a carry after having passed him six yards. As soon as the captain has saluted, he places himself near the reviewing officer, remains until the rear has passed, and then rejoins his battery.

The column is so conducted as to march parallel to the line on which the battery is to form, and far enough in its rear to enable the column to wheel into line. It is then wheeled into line, the ranks opened, and the review terminated by a salute as at the beginning.

When instructions have been previously given to pass a second time, either at a trot or gallop, it will be done before wheeling into line; the officers passing the second time without salute.

When artillery has been passing in review with other troops, and is marching in prolongation of the line on which the different corps are to form, it may be wheeled by sections to the right, and, after gaining the necessary distance, countermarched and established on the line.

When a battery is to march past in line, or in column of half batteries, it will be done according to the principles already described. In line the officers will be at their usual posts. In column of half batteries the captain will be two yards in advance of the chief of the leading half battery; each chief of half battery two yards in front of the centre of his command; the chief of the centre section on the left of the leading half battery, four yards from the

leading driver; and the chief of the line of caissons in the same position with respect to the rear half battery.

In all cases the trumpeters are four yards in front of the captain.

When the battery is to be minutely inspected, the captain will cause the ranks of the detachments to be opened, if required, by the commands:

1. *Detachments.* 2. *To the rear open order.* 3. MARCH.

Which will be executed as in infantry or cavalry, as the case may require.

GUARD-MOUNTING.

742. At the first call for guard-mounting, the men warned for duty turn out on their company parades for inspection by the first sergeants; and at the second call, repair to the regimental or garrison parade, conducted by the first sergeants. Each detachment, as it arrives, will, under the direction of the adjutant, take post on the left of the one that preceded it, in open order, arms shouldered, and bayonets fixed; the supernumeraries five paces in the rear of the men of their respective companies; the first sergeants in rear of them. The sergeant-major will dress the ranks, count the files, verify the details, and when the guard is formed, report to the adjutant, and take post two paces on the left of the front rank.

The adjutant then commands *front*, when the officer of the guard takes post twelve paces in front of the centre, the sergeants in one rank, four paces in the rear of the officers; and the corporals in one rank, four paces in the rear of the sergeants—all facing to the front. The adjutant then assigns their places in the guard.

The adjutant will then command:

1. *Officer and non-commissioned officers.* 2. ABOUT — FACE. 3. *Inspect your guards* — MARCH.

The non-commissioned officers then take their posts. The commander of the guard then commands:

1. *Order* — ARMS. 2. *Inspection* — ARMS;

and inspects his guard. When there is no commissioned officer on the guard, the adjutant will inspect it. During inspection the band will play.

The inspection ended, the officer of the guard takes post as though the guard were a company of a battalion, in open order under review; at the same time, also, the officers of the day will take post in front of the centre of the guard; the old officer of the day three paces on the right of the new officer of the day, one pace retired.

The adjutant will now command:

1. *Parade* — REST. 2. *Troop* — *Beat off;*

when the music, beginning on the right, will beat down the line on front of the officer of the guard to the left, and back to its place in the right, where it will cease to play.

The adjutant then commands:

1. *Attention.* 2. *Shoulder* — ARMS. 3. *Close order* — MARCH.

At the word *close order*, the officer will face about; at *march*, resume his post in line. The adjutant then commands:

Present — ARMS.

At which he will face to the new officer of the day, salute, and report, "*Sir, the guard is formed.*" The new officer of the day, after acknowledging the salute, will direct the adjutant to march the guard in review, or by flank to its post. But if the adjutant be senior to the officer of the day, he will report without saluting with the sword then, or when marching the guard in review.

In review, the guard march past the officer of the day, according to the order of review, conducted by the adjutant, marching on the left of the first division; the sergeant-major on the left of the last division.

When the column has passed the officer of the day, the officer of the guard marches it to its post, the adjutant and sergeant-major retiring. The music, which has wheeled out of the column, and taken post opposite the officer of the day, will cease, and the old officer of the day salute, and give the old or standing orders to the

new officer of the day. The supernumeraries, at the same time, will be marched by the first sergeants to their respective company parades, and dismissed.

In bad weather, or at night, or after fatiguing marches, the ceremony of turning off may be dispensed with, but not the inspection.

Grand guards, and other brigade guards, are organized and mounted on the brigade parade by the staff officer of the parade, under the direction of the field officer of the day of the brigade, according to the principles here prescribed for a police guard of a regiment. The detail of each regiment is assembled on the regimental parade, verified by the adjutant, and marched to the brigade parade by the senior officer of the detail. After inspection and review, the officer of the day directs the several guards to their respective posts.

The officer of the old guard, having his guard paraded, on the approach of the new guard, commands:

Present — ARMS.

The new guard will march, in quick time, past the old guard, at *shouldered arms*, officers saluting, and take post four paces on its right, where, being aligned with it, its commander will order:

Present — ARMS.

The two officers will then approach each other, and salute. They will then return to their respective guards, and command:

1. *Shoulder* — ARMS. 2. *Order* — ARMS.

The officer of the new guard will now direct the detail for the advanced guard to be formed and marched to its post, the list of the guard made and divided into three reliefs, experienced soldiers placed over the arms of the guard and at the remote and responsible posts, and the young soldiers in posts near the guard for instruction in their duties, and will himself proceed to take possession of the guard-house, or guard-tent, and the articles and prisoners in charge of the guard.

During the time of relieving the sentinels, and of calling in the

small posts, the old commander will give to the new all the information and instructions relating to his post.

The first relief having been designated and ordered two paces to the front, the corporal of the new guard will take charge of it, and go to relieve the sentinels, accompanied by the corporal of the old guard, who will take command of the old sentinels, when the whole are relieved.

If the sentinels are numerous, the sergeants are to be employed, as well as the corporals, in relieving them.

The relief, with arms at a support, in two ranks, will march by a flank, conducted by the corporal on the side of the leading front-rank man; and the men will be numbered alternately in the front and rear rank, the man on the right of the front rank being No. 1. Should an officer approach, the corporal will command *carry arms*, and resume the *support arms* when the officer is passed.

The sentinels at the guard-house or guard-tent will be the first relieved and left behind; the others are relieved in succession.

When a sentinel sees the relief approaching, he will halt and face to it with his arms at a shoulder. At six paces, the corporal will command:

1. *Relief.* 2. HALT.

When the relief will halt and carry arms. The corporal will then add, "No. 1," or "No. 2," or "No. 3," according to the number of the post:

Arms — PORT.

The two sentinels will, with arms at *port*, then approach each other, when the old sentinel, under the correction of the corporal, will whisper the instructions to the new sentinel. This done, the two sentinels will shoulder arms, and the old sentinel will pass, in quick time, to his place in rear of the relief. The corporal will then command:

1. *Support* — ARMS. 2. *Forward.* 3. MARCH.

And the relief proceeds in the same manner until the whole are relieved.

The detachments and sentinels from the old guard having come in, it will be marched, at *shouldered arms*, along the front of the new guard, in quick time, the new guard standing at *presented arms;* officers saluting, and the music of both guards beating, except at the outposts.

On arriving at the regimental or garrison parade, the commander of the old guard will send the detachments composing it, under charge of the non-commissioned officers, to their respective regiments. Before the men are dismissed, their pieces will be drawn or discharged at a target. On rejoining their companions, the chiefs of squads will examine the arms, etc., of their men, and cause the whole to be put away in good order.

When the old guard has marched off fifty paces, the officer of the new guard will order his men to stack their arms, or place them in the arm-racks.

The commander of the guard will then make himself acquainted with all the instructions for his post, visit the sentinels, and question them and the non-commissioned officers relative to the instructions they may have received from other persons of the old guard.

Method of escorting, and receiving the color of an infantry regiment.

743. When the regiment turns out under arms, and the color is wanted, one of the flank companies in its tour, or, if both be absent, a battalion company, other than that of the color, will be put in march to receive and escort the color.

The march will be in the following order, in quick time and without music: the drum-major and field music, followed by the band; the escort in column by platoon, right in front, with arms shifted to the right shoulder (see No. 768), and the color-bearer between the platoons.

Arrived in front of the tent or quarters of the colonel, the escort will form line, the field music and band on the right, and arms will be carried.

The moment the escort is in line, the color-bearer, preceded by the first lieutenant, and followed by a sergeant of the escort, will go to receive the color.

When the color-bearer shall come out, followed by the lieutenant and sergeant, he will halt before the entrance; the escort will present arms, and the drums will beat *to the color.*

After some twenty seconds, the captain will cause the beat to cease, arms to be shouldered, and then break by platoon into column; the color-bearer will place himself between the platoons, and the lieutenant and sergeant will resume their posts.

The escort will march back to the battalion to the sound of music in quick time, and in the same order as above.

Honors paid to the color.

Arrived at the distance of twenty paces from the battalion, the escort will halt, and the music cease; the colonel will place himself six paces before the centre of the battalion, the color-bearer will approach the colonel, by the front, in quick time; when at the distance of ten paces, he will halt: the colonel will cause arms to be presented, and *to the color* to be played, which being executed, the color-bearer will take his place in the front rank of the color-guard, and the battalion, by command, shoulder arms.

The escort, field music, and band, will return in quick time to their several places in line of battle, marching by the rear of the battalion.

The color will be escorted back to the colonel's tent or quarters in the above order.

Method of escorting and receiving the standard of a cavalry regiment

744. The squadrons of a regiment, commencing with the first, furnish in turn the escort of the standard.

The captains commanding and the second captain, alternate in command of the escort.

The escort is composed of two platoons (a troop).

The first platoon of the escort furnishes the advanced guard, composed of two men in front, *with the carbine* or *rifle, advanced,* or *pistol raised;* a corporal and four men with drawn sabres march ten paces from them.

The trumpeters, formed by fours, and conducted by the adjutant, march ten paces from the four men who precede.

The rest of the platoon with drawn sabres, having the lieutenant at its head, marches by fours, ten paces from the trumpeters.

The standard-bearer follows immediately after, between two sergeants.

The second platoon with drawn sabres, having the second lieutenant at the head, follows the standard-bearer, marches by fours, and furnishes the rear guard, composed of a corporal and two men, who march with drawn sabres, ten paces in rear of the second platoon.

Two other men, with the *carbine* or *rifle advanced*, or *pistol raised*, march ten paces in rear.

The captain marches four paces from the left flank opposite to the standard-bearer.

The detachment having arrived where the standard is kept, without sounding the trumpets, is there formed into line.

The adjutant dismounts, takes the standard, and gives it to the standard-bearer.

Reception of the Standard.

As soon as the standard appears, the captain orders sabres to be presented; the trumpets sound *to the standard.*

After this signal has been twice repeated, the captain orders the sabres to be carried, and breaks in the same order in which he came; the trumpets sound *the march.*

When the standard arrives in front of the right or left wing of the regiment, the colonel orders the sabres to be drawn; the trumpets cease to sound, and, with the escort, take their place in line, passing behind the regiment.

The standard-bearer, accompanied by the two sergeants, moves towards the centre of the regiment, parallel to the front, and halts before the colonel, fronting the regiment; the colonel then orders the sabres to be presented, and the trumpets to sound *to the standard;* he salutes with the sabre. The standard-bearer then takes his place in line, and the colonel orders the sabres to be carried.

The field officers salute with the sabre when the standard passes before them.

The standard receives the same honors on its departure as on its arrival, and is escorted to the colonel's quarters in the order prescribed above.

Reception of one body of troops by another.

745. The commanding officer of the receiving corps, having notified the commander of the other body of his intention, brings his command into line, so that it shall be on the *right* of the route which it is intended the other shall take. The commander of the body receiving the compliment, should have his command in column right in front; and when he sees the other body in line, or receives an intimation from its commanding officer, that he is ready to receive him, he puts his column in motion; when its head is within six paces of the left of the line on its right, the latter will be brought to a present, and will continue in that position until the rear of the column has passed the right of the line. The column passes at *shouldered arms*, each officer saluting as soon as he comes within six paces of the left of the line. When the rear of the column has passed some twenty-five or thirty paces beyond the right of the line, the column is brought into line, on the same side with the first line. As soon as this is done, the first line breaks into column right in front, and marches past the second, receiving the same compliments that it extended when the other body passed. After marching past, it may be formed into line again as it was at first, when both commands may be brought to an order, the officers advancing and being presented; or the column may halt long enough to allow the other command, now in line, to re-form column, when both take up the march, the leading column serving as an escort for the other.

ORDERS.

746. The orders of commanders of armies, divisions, brigadiers and regiments, are denominated orders of such an army, division, etc. And all orders are either general or special. Orders are num-

bered, general and special, in separate series, each beginning with the year.

General orders provide for the organization, discipline, instruction, and movement of the troops; announce the hours for roll-calls and duties; then umber and kind of guards, and the time when they shall be relieved; police regulations, and the prohibitions required by circumstances and localities; returns to be made, and their forms; laws and regulations for the forces; promotions and appointments; eulogies or censures to corps or individuals, and generally, whatever it may be important to make known to the whole command.

Special orders are such as do not concern the troops generally, and need not be published to the whole command; such as relate to the march of some particular corps, the establishment of some post, the detaching of individuals, the granting requests, etc., etc.

An order will state, at the head, the source, place, and date, and at the foot, the name of the commander who gives it, followed by the signature and title of the staff officer by whom it is written, for example:

For an army —

Head Quarters, Army of Occupation,
CORPUS CHRISTI, TEXAS.
Sept., 18—.

General (or Special) Orders, }
No. 1. }

By order of General Z. T.,
W. S. B. *Adj't General.*

For a division —

Head Quarters, 3d D., Va. M.
WINCHESTER, VA., *Dec.*, 18—.

General (or Special) Orders, }
No. —. }

By order of Major-General A. B.,
C. D., *Assistant Adj't General,*
or *Division Inspector.*

For a brigade —

Head Quarters, 9th Brigade, Va. M.,
CAMP NEAR ——, *Jan.*, 18—.

General (or Special) Orders, No. —.

By order of Brigadier General F. G.
H. I., *Assistant Adj't-General,*
or *Brigade Inspector*

———

For a regiment —

Head Quarters, 20th Regiment, Va. M.
C— N., *August*, 18—.

Orders (or Special Orders), No. —.

By order of Colonel O. P. Q.,
R. S., *Adjutant.*

Orders are ordinarily transmitted through all the intermediate commanders in the order of rank. When an intermediate commander is omitted, the officer who gives the order shall inform him, and he who receives it shall report it to his immediate superior.

The orderly hours being fixed at each head-quarters, the staff officers and chiefs of the special services, either attend in person, or send their assistants to obtain the orders of the day; and the first sergeants of companies repair for that purpose to the regimental or garrison head-quarters.

During marches and active operations, and when the regular orderly hours cannot be observed, all orders will be either sent direct to the troops, or the respective commanders or corps will be informed when to send to head-quarters for them.

MUSTERS.

747. Musters of the volunteers and militia are made at least once a year, by the brigade inspectors. Where troops are in actual service musters are made every two months; usually on the last day of every second month. In this case they are made by an inspector-general, if present, otherwise by an officer specially designated by

the commander of the army, division, or brigade; and in the absence of the inspector-general or officer specially designated, the muster is made by the commander of the post.

When one inspecting officer cannot inspect all the troops himself on the day specified, the commanding officer will designate such other competent officers as may be necessary, to assist him. All stated musters of the troops should be preceded by a minute and careful *inspection* in the prescribed mode; and if the command be more than a company, by a *review*, before inspection.

The mustering officer having inspected the companies in succession, beginning on the right, returns to the first company to muster it. The company being at *ordered arms*, with open ranks, as when inspected, the captains will, as the mustering officer approaches, command:

1. *Attention.* 2. *Company.* 3. *Shoulder* — ARMS. 4. *Support* — ARMS.

The mustering officer will then call over the names on the roll, and each man, as his name is called, will distinctly answer *here*, and bring his piece to a *carry*, and to an *order*.

After each company is mustered, the captain will order it to be marched to the company parade, and there dismissed to quarters, to await the inspector's visit. After mustering the companies, the mustering officer, attended by the company commanders, will visit the guard and hospital, to verify the presence of the men reported there. The muster and pay rolls are made on printed forms in accordance with the directions on them. On the muster rolls companies are designated by the name of the captain, whether present or absent. The pay roll is left blank to fill up by the paymaster.

THE ROSTER, OR DETAILS FOR SERVICE.

748. The duties performed by detail are of three classes. The *first class* comprises, first, grand guards and outposts; second, interior guards, as of magazine, hospital, etc.; third, orderlies; fourth, police guards.

The *second class* comprises, first, detachments to protect labor on military works, as field works, communications, etc.; second, working parties on such works; third, detachments to protect fatigues.

The *third class* are all fatigues, without arms, in or out of camp. In the cavalry, stable-guards form a separate roster, and count before fatigue.

The rosters are distinct for each class. Officers are named on them in the order of rank. The details are taken in succession in the order of the roster, beginning at the head. Lieutenants form one roster, the first and second lieutenants are entered on it alternately. The senior first lieutenant is the first on the roster; the senior second lieutenant is the second, etc. The captains form one roster, and are exempt from fatigue, except to superintend issues. A captain commanding a battalion temporarily, is exempt from detail, and duty falling to him passes. Lieutenant-colonels and majors are on one roster. They may be detailed for duties of the first and second classes, when the importance of the guards and detachments requires it. Their roster is kept at division and brigade head-quarters. The rosters of the captains and lieutenants are kept at regimental head-quarters, and those of the companies by the first sergeants. In the company, sergeants, corporals, and privates form distinct rosters.

Officers, non-commissioned officers, and soldiers, take duties of the first class in the order stated, viz., the first for the detail, takes the grand guards; the next, the interior guards; the last, the police guard; and the same rule in regard to the details and duties of the second class. In the details for the third class, the senior officer takes the largest party. The party first for detail takes the service out of camp.

When the officer whose tour it is, is not able to take it, or is not present at the hour of marching, the next after him takes it. When a guard has passed the chain of sentinels, or an interior guard has reached its post, the officer whose tour it was cannot then take it. He takes the tour of the officer who has taken his. When an officer is prevented by sickness from taking his tour, it passes. These rules apply equally to non-commissioned officers and soldiers.

Duties of the first and second class are credited on the roster when the guards or detachments have passed the chain of sentinels, or an interior guard has reached its post; fatigue duties when the parties have passed the chain or begun the duties in camp.

Every officer, non-commissioned officer, or soldier, on duty of the first class, or who is of the next detail for such duty, takes, when relieved, the duty of the second or third class that has fallen to him during that time, unless he has marched for detachment of more than twenty-four hours.

Soldiers march with knapsacks for all duties of the first class; and with arms and equipments complete on all working parties out of camp, unless otherwise ordered. In the cavalry, horses are packed for all mounted service; and dismounted men, and those whose horses are not in order, are preferred for the detail for dismounted service. Those who are mounted are never employed on those services, if the number of the other class are sufficient.

Every non-commissioned officer and soldier in the cavalry detailed for dismounted service must, before he marches, take to the first sergeant of his troop, or sergeant of his squad, his horse equipments and valise ready packed. In case of alarm, the first sergeant sees that the horses of these men are equipped and led to the rendezvous.

In the field, artillery-men are not called upon for any duty outside their own batteries or camps.

These rules in regard to the roster apply also to service in garrison.

DUTIES OF GUARDS.

749. Sentinels will be relieved every two hours, unless the state of the weather, or other causes, should make it necessary or proper that it be done at shorter or longer intervals.

Each relief, before mounting, is inspected by the commander of the guard or of its post. The corporal reports to him, and presents the old relief on its return.

The *countersign*, or watchword, is given to such persons as are entitled to pass during the night, and to officers, non-commissioned

officers, and sentinels of the guard. Interior guards receive the countersign only when ordered by the commander of the troops.

The *parole* is imparted to such officers only as have a right to visit the guards, and to make the grand rounds; and to officers commanding guards.

As soon as the new guard has been marched off, the officer of the day will repair to the office of the commanding officer and report for orders.

The officer of the day must see that the officer of the guard is furnished with the parole and countersign before *retreat.*

The officer of the day visits the guards during the day at such times as he may deem necessary, and makes his rounds at night at least once after 12 o'clock.

Upon being relieved, the officer of the day will make such remarks in the report of the officer of the guard as circumstances require, and present the same at head-quarters.

Commanders of guards leaving their posts to visit their sentinels, or on other duty, are to mention their intention, and the probable time of their absence, to the next in command.

The officers are to remain constantly at their guards, except while visiting their sentinels, or necessarily engaged elsewhere on their proper duty.

Neither officers nor soldiers are to take off their clothing or accoutrements while they are on guard.

The officer of the guard must see that the countersign is duly communicated to the sentinels a little before twilight.

When a fire breaks out, or any alarm is raised in a garrison, all guards are to be immediately under arms.

Inexperienced officers are put on guard as supernumeraries, for the purpose of instruction.

Sentinels will not take orders or allow themselves to be relieved, except by an officer or non-commissioned officer of their guard or party, the officer of the day, or the commanding officer; in which case the orders will be immediately notified to the commander of the guard by the officer giving them.

Sentinels will report every breach of orders or regulations they are instructed to enforce.

Sentinels must keep themselves on the alert, observing everything that takes place within sight and hearing of their post. They will carry their arms habitually at support, or on either shoulder, but will never quit them. In wet weather, if there be no sentry-box, they will secure arms.

No sentinel shall quit his post or hold conversation not necessary to the proper discharge of his duty.

All persons, of whatever rank in the service, are required to observe respect towards sentinels.

In case of disorder, a sentinel must call out *the guard;* and if a fire take place, he must cry—"*Fire!*" adding the number of his post. If in either case the danger be great, he must discharge his firelock before calling out.

It is the duty of a sentinel to repeat all calls made from posts more distant from the main body of the guard than his own, and no sentinel will be posted so distant as not to be heard by the guard, either directly or through other sentinels.

Sentinels will halt, come to *attention*, and present arms to general and field officers, to the officer of the day, and to the commanding officer of the post. To all other officers they will carry arms.

When a sentinel in his sentry-box sees an officer approaching, he will stand at *attention*, and as the officer passes will salute him, by bringing the left hand briskly to the musket, as high as the right shoulder.

The sentinel at any post of the guard, when he sees any body of troops, or an officer entitled to compliment, approach, must call: "*Turn out the guard;*" and announce who approaches.

Guards do not turn out as a matter of compliment after sunset; but sentinels will, when officers in uniform approach, pay them proper attention, by facing to the proper front, and standing steady at *shouldered arms.* This will be observed until the evening is so far advanced that the sentinels begin challenging.

After retreat (or the hour appointed by the commanding officer), until broad daylight, a sentinel challenges every person who

approaches him, taking, at the same time, the position of *arms port.* He will suffer no person to come nearer than within reach of his bayonet, until the person has given the countersign.

A sentinel, in challenging, will call out — "*Who comes there?*" If answered — "*Friend, with the countersign,*" and he be instructed to pass persons with the countersign, he will reply — "*Advance, friend, with the countersign.*" If answered — "*Friends,*" he will reply — "*Halt, friends. Advance one with the countersign.*" If answered — "*Relief,*" "*Patrol,*" or "*Grand rounds,*" he will reply — "*Halt. Advance, sergeant* (or *corporal*) *with the countersign,*" and satisfy himself that the party is what it represents itself to be. If he have no authority to pass persons with the countersign, if the wrong countersign be given, or if the persons have not the countersign, he will cause them to stand, and call — "*Corporal of the guard.*"

In the daytime, when the sentinel before the guard sees the officer of the day approach, he will call — "*Turn out the guard. officer of the day.*" The guard will be paraded, and salute with presented arms.

When any person approaches a post of the guard at night, the sentinel before the post, after challenging, causes him to halt until examined by a non-commissioned officer of the guard. If it be the officer of the day, or any other officer entitled to inspect the guard and to make the rounds, the non-commissioned officer will call — "*Turn out the guard,*" when the guard will be paraded at shouldered arms, and the officer of the guard, if he thinks necessary, may demand the countersign and parole.

The officer of the day, wishing to make the rounds, will take an escort of a non-commissioned officer and two men. When the rounds are challenged by a sentinel, the sergeant will answer — "*Grand rounds,*" and the sentinel will reply — "*Halt, grand rounds. Advance, sergeant, with the countersign.*" Upon which the sergeant advances and gives the countersign. The sentinel will then cry — "*Advance, rounds,*" and stand at a shoulder till they have passed.

When the sentinel before the guard challenges, and is answered — "*Grand rounds,*" he will reply — "*Halt, grand rounds. Turn out*

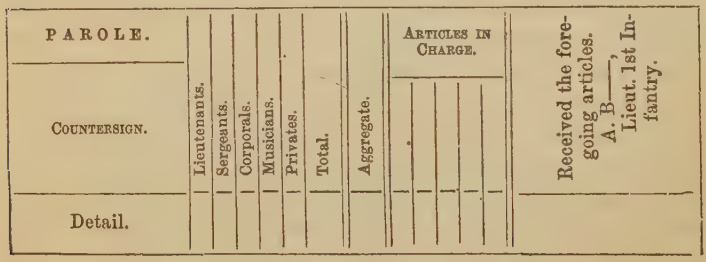
the guard; grand rounds." Upon which the guard will be drawn up at shouldered arms. The officer commanding the guard will then order a sergeant and two men to advance; when within ten paces, the sergeant challenges. The sergeant of the grand rounds answers—"*Grand rounds.*" The sergeant of the guard replies—"*Advance, sergeant, with the countersign.*" The sergeant of the rounds advances alone, gives the countersign, and returns to his round. The sergeant of the guard calls to his officer—"*The countersign is right,*" on which the officer of the guard calls—"*Advance, rounds.*" The officer of the rounds then advances alone, the guard standing at shouldered arms. The officer of the rounds passes along the front of the guard to the officer, who keeps his post on the right, and gives him the parole. He then examines the guard, orders back his escort, and, taking a new one, proceeds in the same manner to other guards.

All material instructions given to a sentinel on post by persons entitled to make grand rounds, ought to be promptly notified to the commander of the guard.

Any general officer, or the commander of a post or garrison, may visit the guards of his command, and go the grand rounds, and be received in the same manner as prescribed for the officer of the day.

FORM OF GUARD REPORT.

Report of a Guard mounted at ——, on the ——, and relieved on the ——.



LIST OF THE GUARD.

Reliefs, and when Posted.									Where Posted.	Remarks.
1st Relief. From — to — and — to —.				2d Relief. From — to — and — to —.			3d Relief. From — to — and — to —.				
No.	Name.	Co.	Rt.	Name.	Co.	Rt.	Name.	Co.	Rt.		
1	C. D.	A	1st	I. J.	D	3d	O. P.	G	8th	Guard House.	
2	E. F.	B	4th	K. L.	E	2d	Q. R.	H	9th	Magazine.	
3	G. H.	C	6th	M. N.	F	5th	S. T.	I	10th	Quarm. Store.	
1	Sergeant W. V., Co. A, 1st Artillery.									Serg't Guard	
2	Corporal W. X., Co. B, 1st Infantry.									Corp'l "	
3	Corporal Y. Z., Co. C, 3d Infantry.									" "	

LIST OF PRISONERS.

No.	Names.	Company.	Regiment.	Confined.		Charges.	Sentences.	Remarks.
				When.	By whom.			
1								
2								
3								
4								
5								

A. B. C.,
Lieut. —— Regiment ——,
Commanding the Guard.

GUARDS.

750. Guards, in time of war, are bodies of men whose duties are to secure an army or place from being surprised by an enemy.

By a proper disposition of the guards, and by a faithful discharge of the duties imposed upon them, a whole army can at all times, and under all circumstances, be kept in readiness for action; the larger part of the army, even in the pursuit of an enemy, and momentarily expecting to meet him, may with safety seek that

repose which is so necessary to keep up the physical energies of the forces; and as the guards generally constitute but a comparatively small portion of the command, and are frequently relieved, no soldier is likely to be called upon to endure an amount of fatigue greater than a man in his vigor ought to bear.

In order that the guards of an army may protect it properly, they must be so posted as to cover both the front and flanks of the position, and at the same time have possession of all the avenues of approach to it. The ordinary arrangement of guards is such, that no matter how far the outer line may lie from the main body, it may rally from point to point, if driven in by an advancing enemy, gaining strength each time, until it finally reaches the main body. Thus even the most advanced posts need never be cut off, while it would be impossible for an enemy to surprise the main body.

The usual arrangement consists of two or three lines of posts, within relief of each other, and extending around the main body as a centre, the exterior line throwing out a chain of sentinels in its front, and so distributed as to prevent the approach of any one without being seen.

751. The inner line consists of what are denominated *police guards;* there is a police guard for each regiment, which is posted within the regimental camp (see camp of an infantry regiment). These guards are of sufficient strength to supply a chain of sentinels along the front and rear of the regiment, connecting it with the regiments on the right and left, thus forming a chain of sentinels close to and all around the camp.

The next line consists of a number of strong detachments, termed *pickets;* they are posted upon the main avenues of approach to the position, and serve as supports to the exterior lines, upon which they rally when driven in by the enemy.

Next beyond the pickets is the line of *grand guards*, and of course occupying a wider circumference; they are posted in the most favorable position for observing the enemy, and throw out the extreme line, called the line of *outposts.* The line of grand

guards, while supported by the pickets, in turn furnishes support to the outposts when necessary.

Besides these various lines, *patrols* are kept up between the various posts, to keep the one informed of the condition of the other; and, also between the outposts and the extreme line of sentinels, to see that the duties of the latter are properly performed.

This arrangement secures positions favorable for observation, and mutual support.

"The duties of the outposts, and of the grand guards which form their supports, are strictly those of observation. If attacked, they offer no resistance further than to enable them to feel the enemy perfectly, and never lose sight of him. The task of holding the enemy in check by a vigorous resistance, so as to procure sufficient time for the main body to make its disposition for battle, is consigned to the pickets." (MAHAN).

Police Guards.

752. The police guard is detailed every day from each regiment, and consists of two sergeants, three corporals, two musicians, and men enough to furnish the necessary sentinels and patrols. The men are taken from all the companies, from each in proportion to its strength.

The guard is commanded by a lieutenant, under the supervision of a captain as regimental officer of the day. It furnishes ten sentinels at the camp; one over the arms of the guard; one at the colonel's tent; three on the color front; one of them over the colors; three, fifty paces in rear of the field officer's tents; and one on each flank, between it and the next regiment. If it is a flank regiment, one more sentinel is posted on the outer flank.

An advanced post is detached from the police guard, composed of a sergeant, a corporal, a drummer, and nine men to furnish sentinels and the guard over the prisoners. The men are the first of the guard roster from each company. The men of the advanced post must not leave it under any pretext. Their meals are sent to the post. The advanced post furnishes three sentinels; two a few paces in front of the post, opposite the right and left wing of the

regiment, posted so as to see as far as possible to the front, and one over the arms.

In the cavalry, dismounted men are employed in preference on the police guard. The mounted men on guard are sent in succession, a part at a time, to groom their horses. The advanced post is always formed of mounted men.

In each company, a corporal has charge of the stable guard. His tour begins at retreat, and ends at morning stable-call. The stable guard is large enough to relieve the men on post every two hours They sleep in their tents, and are called by the corporal when wanted. At retreat he closes the streets of the camp with cords, or uses other precautions to prevent the escape of loose horses.

The officer of the day is charged with the order and cleanliness of the camp: a fatigue is furnished to him when the number of prisoners is insufficient to clean the camp. He has the calls beaten by the drummer of the guard.

The police guard and the advanced post pay the same honors as other guards. They take arms when an armed body approaches.

The sentinel over the colors has orders not to permit them to be moved except in the presence of an escort; to let no one touch them but the color-bearer, or the sergeant of the police guard when he is accompanied by two armed men.

The sentinels on the color front permit no soldier to take arms from the stacks, except by order of some officer, or a non-commissioned officer of the guard. The sentinel at the colonel's tent has orders to warn him, day or night, of any unusual movement in or about the camp.

The sentinels on the front, flanks, and rear, see that no soldier leaves camp with horse or arms unless conducted by a non-commissioned officer. They prevent non-commissioned officers and soldiers from passing out at night, except to go to the sinks, and mark if they return. They arrest, at any time, suspicious persons prowling about the camp, and at night, every one who attempts to enter, even the soldiers of other corps. Arrested persons are sent to the officer of the guard, who sends them, if necessary, to the officer of the day.

The sentinels on the front of the advanced post have orders to

permit neither non-commissioned officers nor soldiers to pass the line, without reporting at the advanced post; to warn the advanced post of the approach of any armed body, and to arrest all suspicious persons. The sergeant sends persons so arrested to the officer of the guard, and warns him of the approach of any armed body.

The sentinel over the arms at the advanced post guards the prisoners, and keeps sight of them, and suffers no one to converse with them without permission. They are only permitted to go to the sinks one at a time, and under a sentinel.

If any one is to be passed out of camp at night, the officer of the guard sends him under escort to the advanced post, and the sergeant of the post has him passed over the chain.

At retreat, the officer of the guard has the roll of his guard called, and inspects arms, to see that they are loaded and in order; and visits the advanced post for the same purpose. The sergeant of the police guard, accompanied by two armed soldiers, folds the colors and lays them on the trestle in rear of the arms. He sees that the sutler's stores are then closed, and the men leave them, and that the kitchen fires are put out at the appointed hour.

The officer of the day satisfies himself frequently during the night of the vigilance of the police guard and advanced post. He prescribes patrols and rounds to be made by the officer and non-commissioned officers of the guard. The officer of the guard orders them when he thinks necessary. He visits the sentinels frequently.

At reveille, the police guard takes arms; the officer of the guard inspects it and the advanced post. The sergeant replants the colors in place. At retreat and reveille the advanced post takes arms; the sergeant makes his report to the officer of the guard when he visits the post.

When necessary, the camp is covered at night with small outposts, forming a double chain of sentinels. These posts are under the orders of the commander of the police guard, and are visited by his patrols and rounds.

The officer of the guard makes his report of his tour of service, including the advanced post, and sends it, after the guard is marched off, to the officer of the day.

When the regiment marches, the men of the police guard return to their companies, except those of the advanced post. In the cavalry, at the sound "boot and saddle," the officer of the guard sends one half the men to saddle and pack; when the regiment assembles, all the men join it.

When the camping party precedes the regiment, and the new police guard marches with the camping party, the guard, on reaching the camp, forms in line thirty paces in front of the centre of the ground marked for the regiment. The officer of the guard furnishes the sentinels required by the commander of the camping party. The advanced post takes its station.

The advanced post of the old police guard takes charge of the prisoners on the march, and marches, bayonets fixed, at the centre of the regiment. On reaching camp, it turns over the prisoners to the new advanced post.

PICKETS.

753. The detail for the picket is made daily, and is composed of a lieutenant, two sergeants, four corporals, a drummer, and about forty privates for each regiment. For a smaller force, the picket is in proportion to the strength of the detachment. The duty of the pickets is to hold the enemy in check, and the points which they take up should, if possible, be susceptible of good defence; such as villages, defiles, etc.: when these advantages do not present themselves, temporary obstacles, such abatis, etc., should be resorted to. The points occupied by the pickets should be about midway between the line of outposts and the position of the main body.

Small posts should be thrown forward by the pickets, between them and the line of grand guards. These give greater security to the pickets, and furnish support to the grand guard.

GRAND GUARDS AND OUTPOSTS.

754. The numbers, strength, and position of grand guards are regulated by the commanders of brigades; in detached corps, by

the commanding officer. When it can be done, the grand guards of infantry and cavalry are combined, the cavalry furnishing the advanced sentinels. When the cavalry is weak, the grand guards are infantry, but furnished with a few cavalry soldiers, to get and carry intelligence of the enemy.

The strength of the grand guard of a brigade will depend on the strength of the regiments, the nature of the country, the position of the enemy, and the disposition of the inhabitants. It is usually commanded by a captain.

Under the supervision of the generals of division and brigade, the grand guards are especially under the direction of a field officer of the day in each brigade. In case of necessity, captains may be added to the roster of lieutenant-colonels and majors for this detail.

Grand guards usually mount at the same time as the other guards, but may mount before daybreak if the general of brigade thinks it necessary to double the outposts at this time. In this case they assemble and march without noise, and during the march throw out scouts; this precaution should always be taken in the first posting of a grand guard. The doubling of guards weakens the corps and fatigues the men, and should seldom be resorted to, and never when preparing to march or fight.

755. A grand guard is conducted to its post in the first instance by the field officer of the day, guided by one of the staff officers who accompanied the general in his reconnoissance. After the post has been established, the commander sends to the field officer of the day, when necessary, a soldier of the guard to guide the relieving guard to the post. He also sends to him in the evening a corporal or trusty man of the guard, for the note containing the parole and countersign, and sends them before dark to the outposts. He will not suffer his guard to be relieved except by a guard of the brigade, or by special orders from competent authority.

If there is no pass to be observed or defended, the grand guards are placed near the centre of the ground they are to observe, on sheltered, and, if possible, high ground, the better to conceal their strength and observe the enemy; they ought not to be placed near the edge of a wood. When, during the day, they are placed very

near, or in sight of the enemy, they fall back at night on parts selected farther to the rear.

After a grand guard is posted, the first care of the commander and of the field officer of the day is to get news of the enemy; then to reconnoitre his position, and the roads, bridges, fords, and defiles. This reconnoissance determines the force and position of the outposts and their sentinels day and night. These posts, when of infantry, should be about 200 paces in front of the line of grand guards, and of cavalry from 600 to 800; and are commanded by officers or non-commissioned officers, according to their importance. Cavalry posts may be relieved every four or eight hours.

The commander of a grand guard receives detailed instructions from the general and field officers of the day of the brigade, and instructs the commanders of the outposts as to their duties, and the arrangements for the defence or retreat. The commanders of grand guards may, in urgent cases, change the positions of the outposts. If the outposts are to change their position at night, they wait until the grand guard has gotten its position, and darkness hides their movements from the enemy; then march silently and rapidly under charge of an officer.

In detached corps, small posts of picked men are at night sent forward on the roads by which the enemy may attack or turn the position. They watch the forks of the roads, keep silence, conceal themselves, light no fires, and often change place. They announce the approach of an enemy by signals agreed upon, and retreat, by routes examined during the day, to places selected, and rejoin the guard at daybreak.

Grand guards have special orders in each case, and the following in all cases: to inform the nearest posts and the field officer of the day, or the general of brigade, of the march and movements of the enemy, and of the attacks they receive or fear; to examine every person passing near the post, particularly those coming from without; to arrest suspicious persons, and all soldiers and camp-followers who try to pass out without permission, and to send to the general, unless otherwise directed, all country people who come in.

756. All out-guards stand to arms at night on the approach of

patrols, rounds, or other parties; the sentinel over the arms will call them out.

The sentinels and videttes are placed on points from which they can see farthest, taking care not to break their connection with each other or with their posts. They are concealed from the enemy as much as possible by walls, or trees, or elevated ground. It is generally even of more advantage not to be seen than to see far. They should not be placed near covers, where the enemy may capture them. A sentinel should always be ready to fire; videttes carry their carbines or pistols in their hands. A sentinel must be sure of the presence of an enemy before he fires; once satisfied of that, he must fire, though all defence on his part be useless, as the safety of the post may depend on it. Sentinels fire on all persons deserting to the enemy.

If a sentinel's post must be where he cannot communicate with the guard, a corporal and three men are detached for it, or the sentinels are doubled, that one may communicate with the guard. During the day communication may be made by signals, such as raising a cap or handkerchief. At night sentinels are placed on low ground, the better to see objects against the sky.

To lessen the duty of rounds, and keep more men on the alert at night, sentinels on outposts are relieved every hour. To prevent sentinels from being surprised, it is sometimes well to precede the countersign by signals, such as striking the musket with the hand, striking the hands together, etc.

On the approach of any one at night, the outpost sentinel orders—"*Halt!*" If the order is not obeyed after being repeated once, he fires. If obeyed, he calls—"*Who goes there?*" If answered—"*Rounds,*" or "*Patrol,*" he says—"*Advance with the countersign.*" If more than one advance at the same time, or the person who advances fails to give the countersign or signal agreed on, the sentinel fires, and falls back on his guard. The sentinel over the arms, as soon as *his* hail is answered, turns out the guard, and the corporal goes to reconnoitre. When it is desirable to hide the position of the sentinel from the enemy, the hail is replaced by *signals;* the sentinels give the signal, and those approaching the counter signal.

With *raw* troops, or when the light troops of the enemy are numerous and active, and when the country is broken or wooded, the night stormy or dark, sentinels should be doubled. In this case, while one watches, the other, called a *flying sentinel*, moves about, examining the paths and hollows.

The commanders of grand guards visit the sentinels often; change their position when necessary; make them repeat their orders; teach them under what circumstances and at what signals to retire, and particularly not to fall back directly on their guard if pursued, but to lead the enemy in a circuit.

757. At night, half the men of the grand guard off post watch under arms, while the rest lie down, arms by their side. The horses are always bridled; the horsemen hold the reins and must not sleep. An hour before break of day, infantry grand guards stand to arms, and cavalry mount. At the outposts some of the infantry are all night under arms, some of the cavalry on horseback.

The commander of a grand guard regulates the numbers, the hours, and the march of patrols and rounds, according to the strength of his command, and the necessity for precaution; and, accompanied by those who are to command the patrols and rounds during the night, he will reconnoitre all the routes they are to follow. Patrols and rounds march slowly, in silence, and with great precaution; halt frequently to listen and examine the ground. The rounds consist of an officer or non-commissioned officer, and two or three men. Towards the break of day the patrols ought to be more frequent, and sent to greater distances. They examine the hollow ways and ground likely to conceal an enemy, but with great caution, to avoid being cut off, or engaged in an unequal combat; if they meet the enemy, they fire and attempt to stop his march. While the patrols are out, the outposts are under arms.

Cavalry patrols should examine the country to a greater distance than infantry, and report to the infantry guard every thing they observe. The morning patrols and scouts do not return until broad daylight; and when they return, the night sentinels are withdrawn, and the posts for the day resumed.

On their return, commanders of patrols report in regard to the

ground and everything they have observed of the movements of the enemy, or of his posts, and the commander of the grand guard reports to the field officers of the day. The fires of grand guards should be hidden by a wall, ditch, or other screen. To deceive the enemy, fires are sometimes made on unoccupied ground. Fires are not permitted at small posts liable to surprise.

If a body of troops attempt to enter the camp at night, unless their arrival has been announced, or the commander is known to, or is the bearer of a written order to the commander of the grand guard, he stops them, and sends the command under escort to the field officer of the day, and at the same time warns the posts near him.

Bearers of flags are not permitted to pass the outer chain of sentinels; their faces are turned from the post or army; if necessary their eyes are bandaged; a non-commissioned officer stays with them to prevent indiscretion on the part of sentinels.

The commander of the guard receipts for dispatches, and sends them to the field officer of the day or general of brigade, and dismisses the bearer; but if he has discovered what ought to be concealed from the enemy, he is detained as long as necessary.

Deserters are disarmed at the outposts, and sent to the commander of the grand guard, who gets from them all the information he can concerning the enemy. If many come at night, they are received *cautiously, a few at a time.* They are sent in the morning to the field officer of the day, or to the nearest post or camp, to be conducted to the general of the brigade. All suspected persons are secreted by the commanders of the outposts.

ARTICLE XIII.

DUTIES OF CAPTAINS — COMPANIES — DUTIES IN CAMP AND GARRISON, ETC.

758. Captains or commanders of companies fill one of the most important stations in the service, when they are viewed in relation to the direct influence they exercise upon the soldiery; to them attaches the high responsibility of the instruction, good order, efficiency, and discipline of their companies; and no one should be willing to accept the post who is not qualified, or ready to qualify himself, for a faithful discharge of all the duties of the office.

It is the duty of every captain to make himself familiar with tactics, or at least so much of it as will enable him to command his company properly in every situation; and to become perfectly acquainted with its interior management.

In the case of a vacancy in the office of captain, or in his absence, the command of the company devolves on the officer next in rank. Captains should require their lieutenants to assist them in the performance of all company duties, the knowledge thus acquired being essential to every company officer.

In the volunteers and militia, the captain and lieutenant are elected by the company after its organization; the non-commissioned officers are either elected in the same way, or are selected by the captain.

759. Arms and accoutrements are issued by order of the adjutant-general to volunteer companies after their organization, and to such of the militia as the Governor may deem it proper to arm. Before a volunteer company can receive its arms, the captain must procure

the following certificate from the colonel of the regiment to which the company is attached.

Form of Inspection Return to enable a Volunteer Company to receive Public Arms.

I, A. B., commandant of the —— Regiment of Virginia Militia, do hereby certify, that on the — day of ——, I mustered and inspected the (troop of cavalry, company of artillery, company of light infantry or riflemen, as the fact may be,) commanded by Captain —— ——, (attached to or belonging to, as the fact may be,) the said regiment; at which muster and inspection there were of the said company — men, fully and completely uniformed, in the mode prescribed by law.

Given under my hand this — day of ———, 18—.[1]

760. The militia laws of many of the States permit volunteer companies to choose their own uniforms; all experience proves that the plainest and simplest uniform is the best for service. It is a mistake to suppose that handsome and expensive uniforms are to be preferred; the best uniform is that which combines comfort, appropriateness, and durability.

Plain and substantial overcoats with capes should always form a part of the uniform; and some simple fatigue dress, to be worn when off duty, or on fatigue, will always be found to be a great saving to the uniform.

Each man of the company should be provided with a knapsack for his clothing, a haversack for his rations, and one or two thick blankets. In addition, there should be one bedsack for every two men, to be made of substantial linen or cotton goods; it should be made about six and a half feet long, by three and a half feet wide. sewed up at both ends, and having a slit in the centre, provided with strings to tie it close, so as to prevent the straw working out. The haversack is made of white linen or cotton duck; it is worn from the right shoulder to the left side; it should be large enough

[1] This is the Virginia form; each State has its own form.

to contain at least three days' rations of bread and meat, and would be much improved by having a small tin box in it large enough to contain the meat ration. Fig. 171 is a representation of the haversack. The company should at all times be supplied with tents, etc.,

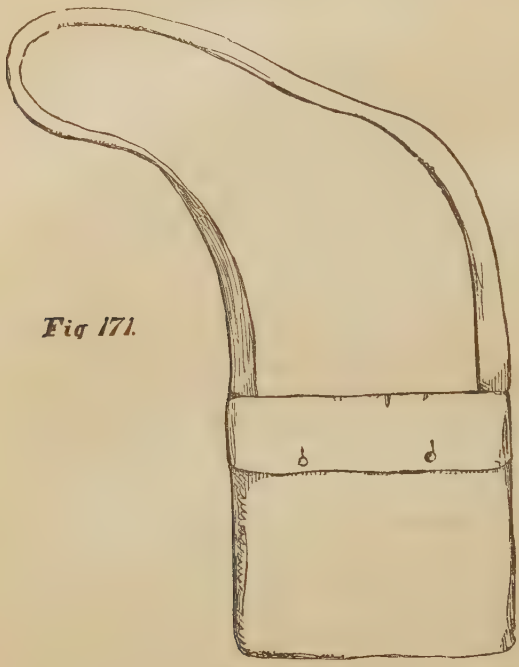


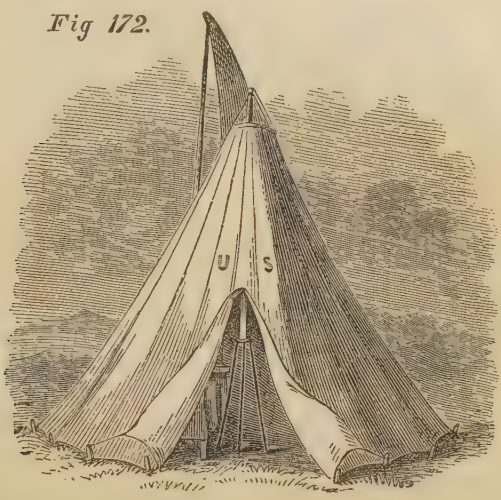
Fig 171.

for service in the field; together with the requisite number of camp kettles, tin table furniture, etc.

761. There are several forms of tents—the common tent, covering an area of about seven feet square, and capable of accommodating from five to six men; the wall tent, usually used by officers, about nine feet square, and having its roof protected by a second piece of canvas, known as the "*fly*;" the Sibley tent, which is conical in shape, has but a single central pole, with an arrangement at the top to admit of a fire in the centre for cooking purposes, or for comfort

in cold weather, and sufficiently large to accommodate from twelve to fifteen men; and the *shelter tent* of the French. The Sibley tent is in general use in the U. S. service. Fig. 172 is a representation

Fig 172.



of the Sibley tent, and Fig. 173 of the shelter tent. The latter is in valuable in a summer campaign, when transportation is limited.

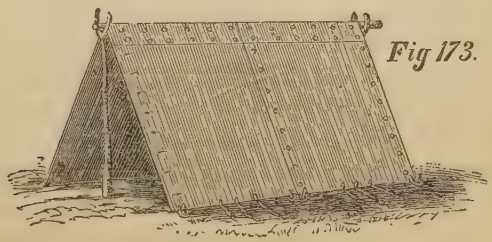


Fig 173.

A new invention has been lately introduced into the U. S. service, which promises to be very useful; it is called the tent knapsack, and serves the purpose of a knapsack on the march, and a shelter tent when in camp. It is a piece of gutta-percha, five fee

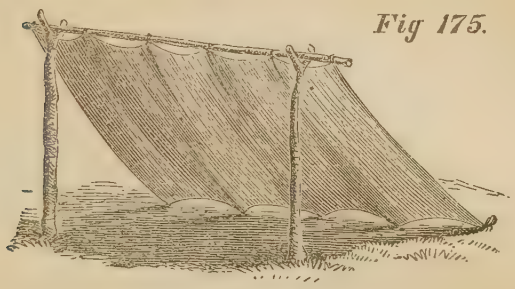
three inches long, and three feet eight inches wide, with double edges on one side, and brass studs and button holes along two edges, and straps and buckles on the fourth; with two sticks, three feet eight inches long, by one and a half inches in diameter, and a small cord. When used as a knapsack, the clothing is packed in a cotton bag, and the gutta-percha sheet is folded around it, lapping at the ends. The clothing is thus protected by two or three thicknesses of gutta-percha; the knapsack adapts itself to the size of the contents, so that a compact and portable bundle can be made, whether the "kit" be entire or not; and with the cotton bag, it forms a convenient, commodious, and desirable receptacle for all a soldier's clothing and necessaries. (Fig. 174.)

Fig 174.

The studs and eyelets along two edges of the tent knapsack are for the purpose of fastening a number of them together, and thus making a large sheet which may be used as a shelter tent. When used the sheet is to be stretched on a cord supported by two sticks, or by two rifles, muskets, or carbines, and pinned down at the sides with small pins. The sheet of four knapsacks is ten feet six inches long, and seven feet four inches wide, and when pitched on a rope four feet four inches above the ground, covers a horizontal space of six feet six inches wide, and seven feet four inches long, which will accommodate from five to seven men (see Fig. 173). Or four of these knapsacks may be united, an edge pinned to the ground, and the opposite one secured to a pole facing a fire, forming a *half-faced camp*, as is shown in Fig. 175.

762. Every man should be provided with the following articles at all times, such as are not on the person to be kept in the knapsack:

Fig 175.



Two woollen under-shirts.

Two pair thick cotton drawers.

Four pair woollen socks.

Two pair stout shoes, with broad, thick soles, for footmen.

One pair boots, and one pair shoes for horsemen.

Towels, handkerchiefs, comb and brush, and tooth-brush. Stout linen thread, large needles, a bit of wax, a few buttons, paper of pins, and a thimble, all contained in a small buckskin or stout cloth-bag.

In addition every man should be supplied with a tin plate; quart cup with the handle well riveted on, so as to serve the soldier for making his coffee, etc., in case of necessity, as well as for an ordinary drinking cup; knife, fork, and spoon. The plate may be carried in the knapsack, or on the outside of it under the straps, or all the plates of the company may be packed in the camp-kettles; the cup may be carried on the waist belt, or on the knapsack strap and the knife, fork, and spoon should be carried in a leathern sheath which slips on to the waist belt, to be worn in front, and on the left of the centre of the body. Fig. 176 shows the manner of arranging the sheath.

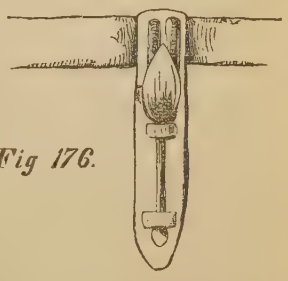


Fig 176.

Every company should be provided with a small chest petitioned

off into several compartments, and large enough to contain a week or ten days' issue of the small rations, such as beans, rice, coffee, sugar, salt, etc. The issues of bread, pork, etc., should be transported in the original packages.

When a militia company is called into service, the captain should, at the earliest possible moment, have it properly uniformed and equipped, and taught how to take care of its arms, clothing, etc.; each man should be provided with his knapsack, haversack, blanket, knife and fork, spoon, tin plate, and cup.

Canteens are also necessary in most cases; they are worn over the haversack.

763. The captain should cause the men of his company to be numbered in a regular series, including the non-commissioned officers, and divided into several squads, each to be put under the charge of a non-commissioned officer. As far as practicable, the men of each squad are quartered together.

Each of the lieutenants is charged with a squad for the supervision of its order and cleanliness; and captains should require their subalterns to assist them in the performance of *all* company duties.

The utmost attention should be paid by captains to the cleanliness of their men, as to their persons, clothing, arms, accoutrements, and equipments, and also as to their quarters or tents.

The name of each soldier should be labelled on his bunk in quarters, and his company number should be placed against his arms and accoutrements.

The arms are placed in arm-racks, the stoppers in the muzzles, the cocks let down, and the bayonets in their scabbards, the accoutrements suspended over the arms, and the swords or sabres, when these are worn, hung up by the belts on pegs.

The knapsack of each man should be placed at the foot of his bunk when he is in quarters, packed with his effects, and ready to be slung; the overcoat rolled, strapped, and placed under the knapsack; the cap on a shelf, and his boots well cleaned. Dirty clothes should be kept in an appropriate part of the knapsack; nothing to be put under the bedding.

Cooking utensils and table furniture should be clean, and in

their appropriate places; blacking and brushes out of sight; the fuel in boxes.

The cleaning up should take place at least once a week. The chiefs of squads should cause bunks and bedding to be overhauled, floors cleaned, and arms, accoutrements, etc., all put in order.

Non-commissioned officers, in charge of squads, should be held immediately responsible that their men observe what is prescribed above; that they wash their hands and faces daily; that they brush or comb their heads and beards; that those who go on duty put their arms, accoutrements, dress, etc., in the best order.

Commanders of companies should see that the arms and accoutrements in possession of the men are always kept in good order, and that proper care is taken in cleaning them.

Arms should not be taken to pieces without permission of an officer. Bright barrels should be kept clean and free from rust without polishing them; care should be taken not to bruise or bend the barrel. After firing, wash out the bore, wipe it dry, and then pass a bit of cloth, slightly greased, to the bottom. In these operations, a rod of wood with a loop on one end is to be used instead of the rammer. The barrel, when not in use, should be closed with a stopper. For exercise, each man should keep himself provided with a piece of sole leather to fit the cap or countersink of the hammer, to prevent breaking the nipple.

All field pieces in the possession of artillery companies should be kept clean and dry; their vents frequently examined to see that they are clear; the elevating screw wiped clean, worked and oiled. When tarpaulins are placed over them, they should occasionally be removed, the guns and carriages brushed off, and, if damp, allowed to dry.

The implements should all be kept clean and under cover, the harness and leather articles should be brushed and greased with *neat's foot oil* as often as their condition requires it, and if they have a reddish hue, mix a little lampblack with the oil. First brush the leather, then pass over it a sponge wet with warm water, and apply the oil before the leather is quite dry.

Arms should not be left loaded in armories, quarters, or tents, or

when the men are off duty, except by special orders. The ammunition in the possession of the men should be inspected frequently, and any damaged, wasted, or lost by neglect, should be paid for.

Knapsacks should be black; they should be marked on the outside with the number of the regiment, and on the inside with the letter of the company, and the number of the soldier, on such part as will readily be seen at inspections.

Haversacks should be marked on the flap with the number and name of the regiment, the letter of the company, and the number of the soldier.

Both officers and men should wear the prescribed uniform in camp or garrison.

In camp or quarters, the officers should visit the kitchen daily and inspect the kettles, food, etc., and at all times carefully attend to the messing and economy of their companies.

The company rations are usually taken charge of by the orderly sergeant, and issued daily to the cooks by whom they are prepared and served to the company. The men of the company serve in turn as cooks, two being the usual number serving at once. When in camp, the men present themselves at meal times to the cooks, who issue to each man in turn his proper allowance; in garrison, or quarters the tables are set out, and the cooks place each man's ration on his plate, and in his cup, before the company is marched in.

When not actually in the field the ration is in most cases more than sufficient, so that by care on the part of the orderly sergeant and cooks, there is more or less saved on the rations of the company; this saving is sold for the benefit of the company, and constitutes what is denominated the *Company Fund.*

DUTIES IN CAMP AND GARRISON.

764. The duties in camp and garrison are to be conducted, as far as practicable, in the same manner and on the same principles.

The *Reveille* is the signal for the men to rise, and the sentinels to leave off challenging. It is usually sounded at dawn of day, except when the troops are on the march, when the signal may be sounded at a much earlier hour. The men form on their company

parade grounds, and as soon as the reveille ceases the rolls are called by the orderly sergeants, *superintended by a commissioned officer.*

Immediately after the roll call (after stable duty in the cavalry and light artillery), the tents or quarters should be put in order by the men of the companies, superintended by chiefs of squads; the parades, streets of the camp, etc., are cleaned by the *police* party of the day, in charge of a non-commissioned officer, and superintended by the officer of the day, and the guard house or guard tent by the guard or the prisoners, if there are any.

Breakfast call is sounded at — o'clock in the morning, and is the signal for breakfast.

The *Troop* sounds at — o'clock in the morning for the purpose of assembling the men for duty, inspection at guard-mounting, and morning dress parade, when the commanding officer commands it.

The *Surgeon's call* is to sound or beat at — o'clock in the morning, when the sick, able to go about, are conducted to the hospital by the first sergeants of companies, who hand to the surgeon a list of all the sick in the company.

After the surgeon has passed upon the sick, the first sergeants proceed to make off the morning reports of their companies, which, after being signed by their captains, are taken to regimental headquarters at first sergeant's call.

The morning report of the company is made off in a book kept for that purpose, called the *morning report book,* and in accordance with Form No. 1. The rulings extend across both pages of the book when open; the report occupies but a single line each morning, so that if the number of lines are sufficient, a single heading will suffice for the reports of an entire month.

The *Dinner call* is sounded at — o'clock, and is the signal for dinner.

The *Retreat* is sounded at sunset, when there is a roll-call and the orders for the day are read. When the weather permits, there is a dress parade at retreat, and the orders are read out at the close of it. Each regiment or battalion has an independent parade, commanded by the colonel.

The *Tattoo* is sounded at — o'clock in the evening, when the

rolls are called; no soldier is allowed to be out of his tent or quarters after this hour, without special permission.

In the cavalry, *stable-calls* are sounded immediately after reveille, and an hour and a half before retreat; *water-calls* at the hours directed by the commanding officer.

The *Drummers' call* is beaten by the drums of the police guard five minutes before the time of beating the stated calls, when the field music assembles before the colors of their respective regiments, and as soon as the beat begins on the right is taken up along the line.

Calls for drills are sounded at such hours as the commanding officer may designate.

765. Daily duties must be announced in order, and the officers to perform them are detailed according to the rules of the roster.

The number and rank of the officers for daily duty, are to be regulated by the strength and circumstances of the camp or garrison; the officers detailed for duty, should remain in or about the camp or garrison during their tours of duty.

Besides the officers detailed for guard duty, the officers for daily duties in large commands are as follows:

A General officer of the day for each division; *a field officer of the day* for each brigade; and *a regimental officer of the day* for each regiment.

In camps or garrisons of one regiment or less, the officers are as follows: *officer of the day*, and *officer of the guard.*

The *General of the day* is to superintend the regularity and discipline of the camp of the division, visit the guards and outposts, call out and inspect the guards as often and at such times as he thinks proper; to receive all reports of guards, and make immediate communication of any extraordinary circumstances, to his commanding officer, or to the General-in-chief.

The *Field officer of the day* has the immediate superintendence of the camp of the brigade; he is to be present at the mounting and dismounting of the brigade or grand guards; he is to call them out to inspect them; to order such patrols, posts, and outposts as may be necessary; to see that the grand guard is vigilant, that none are absent, and that their arms and accoutrements are in order; that the officers and non-commissioned officers are acquainted with their

duty, and that the sentries are properly posted, and have received proper orders.

The *Regimental officer of the day* in each regiment, and in commands less than a regiment, is charged with the order and cleanliness of the camp or garrison; he has the calls beaten by the drummer of the police guard; he attends the parading of the guards, and orders the roll to be called frequently and at unexpected periods, and reports everything extraordinary to the commander of the garrison or camp; he is to visit the hospital at various hours and make a report of its state to the commanding officer. He should satisfy himself frequently during the night, of the vigilance of the police guard, and prescribe patrols and rounds to be made by the officer of the guard. He should give attention to the condition of the sinks, the regulation of the camp fires, the removal of rubbish, etc,; and for these purposes a fatigue party will be furnished him when necessary.

CAMPS.

Camp of Infantry.

766. Each company has its tents in two files, facing on a street perpendicular to the color line. The width of the street depends on the front of the camp, but should not be less than five paces. The interval between the ranks of tents is two paces; between the files of tents of adjacent companies, two paces; between regiments, twenty-two paces.

The color line is ten paces in front of the front rank of tents. The kitchens are twenty paces behind the rear rank of company tents; the non-commissioned staff and sutler, twenty paces in rear of the kitchens; the company officers, twenty paces farther in rear; and the field and staff, twenty paces in rear of the company officers.

The company officers are in rear of their respective companies; the captains on the right.

The colonel and lieutenant-colonel are near the centre of the line of field and staff; the adjutant, a major and surgeon, on the right; the quartermaster, a major and assistant surgeon, on the left.

The police guard is at the centre of the line of the non-commissioned staff, the tents facing to the front, the stacks of arms on the left.

The advanced post of the police guard is about 200 paces in front of the color line, and opposite the centre of the regiment or on the best ground; the prisoners' tent about four paces in rear. In a regiment of the second line, the advanced post of the police guard is 200 paces in rear of the line of its field and staff.

The horses of the staff officers and of the baggage train are twenty-five paces in rear of the tents of the field and staff; the wagons are parked on the same line, and the men of the train camped near them.

The sinks of the men are 150 paces in front of the color line — those of the officers 100 paces in rear of the train. Both are concealed by bushes. When convenient, the sinks of the men may be placed in rear or on a flank. A portion of the earth dug out for sinks to be thrown back occasionally.

The front of the camp of a regiment of 1000 men in two ranks will be 400 paces, or one-fifth less paces than the number of files, if the camp is to have the same front as the troops in order of battle. But the front may be reduced to 190 paces by narrowing the company streets to five paces; and if it be desirable to reduce the front still more, the tents of companies may be pitched in single file — those of a division facing on the same street.

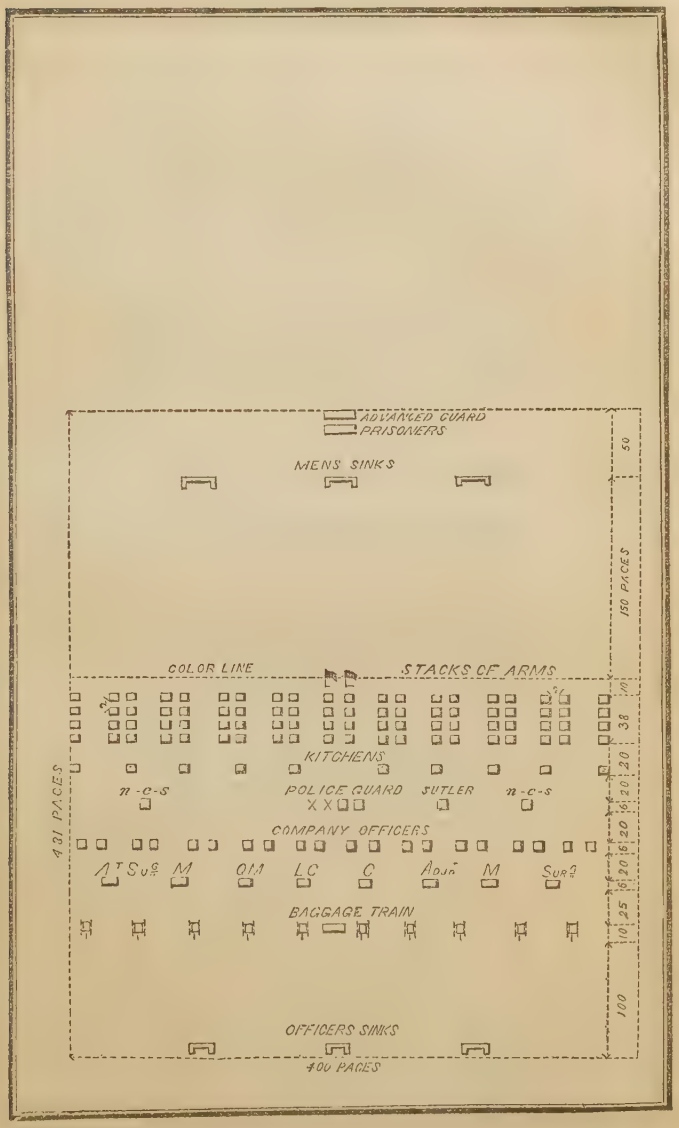
Camp of Cavalry.

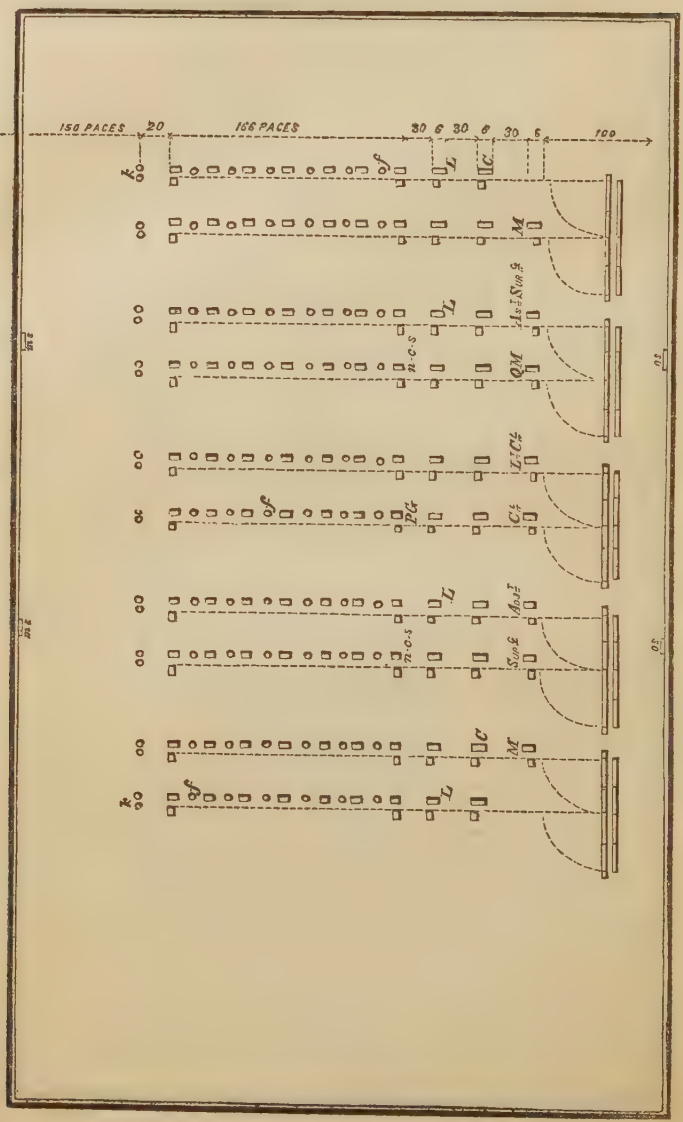
767. In the cavalry, each company has one file of tents — the tents opening on the street facing the left of the camp.

The horses of each company are placed in a single file, facing the opening of the tents, and are fastened to pickets planted firmly in the ground, from three to six paces from the tents of the troops.

The interval between the file of tents should be such that, the regiment being broken into column of companies [as indicated in plate], each company should be on the extension of the line on which the horses are to be picketed.

The streets separating the squadrons are wider than those between the companies by the interval separating squadrons in line; these intervals are kept free from any obstruction throughout the camp.


ADVANCED GUARD
PRISONERS
MENS SINKS
50
150 PACES
COLOR LINE
STACKS OF ARMS
38
KITCHENS
431 PACES
n-c-s
POLICE GUARD
SUTLER
n-c-s
COMPANY OFFICERS
1ST SGT
M
OM
LC
C
ADJT
M
SURG
BAGGAGE TRAIN
100
OFFICERS SINKS
400 PACES


60
150 PACES
20
166 PACES
30
6
30
6
30
6
100
K
L
M
N.C.S
Lt. Col.
Maj.
Adj.
Qr. M.
Lt. Col.
Capt.
Maj.
Adj.
N.C.S
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K
L
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M

The horses of the rear rank are placed on the left of those of their file-leaders.

The horses of the lieutenants are placed on the right of their platoons; those of the captains on the right of the company.

Each horse occupies a space of about two paces. The number of horses in the company fixes the depth of the camp, and the distance between the files of tents; the forage is placed between the tents.

The kitchens are twenty paces in front of each file of tents.

The non-commissioned officers are in the tents of the front rank Camp-followers, teamsters, etc., are in the rear rank. The police guard in the rear rank, near the centre of the regiment.

The tents of the lieutenants are thirty paces in rear of the file of their company; the tents of the captains thirty paces in rear of the lieutenants.

The colonel's tent thirty paces in rear of the captains, near the centre of the regiment; the lieutenant-colonel on his right; the adjutant on his left; the majors on the same line, opposite the second company on the right and left; the surgeon on the left of the adjutant.

The field and staff have their horses on the left of their tents, on the same line with the company horses; sick horses are placed in one line on the right or left of the camp. The men who attend them have a separate file of tents; the forges and wagons in rear of this file. The horses of the train and of camp-followers are in one or more files extending to the rear, behind the right or left squadron. The advanced post of the police guard is 200 paces in front, opposite the centre of the regiment; the horses in one or more files.

The sinks for the men are 150 paces in front — those for officers 100 paces in rear of the camp.

Camp of Artillery.

768. The artillery is encamped near the troops to which it is attached, so as to be protected from attack, and to contribute to the defence of the camp. Sentinels for the park are furnished by the artillery, and, when necessary, by the other troops.

For a battery of six pieces the tents are in three files — one for

each section; distance between the ranks of tents fifteen paces; tents opening to the front. The horses of each section are picketed in the file, ten paces to the left of the file of tents. In the horse artillery, or if the number of horses makes it necessary, the horses are in two files on the right and left of the file of tents. The kitchens are twenty-five paces in front of the front rank of tents. The tents of the officers are in the outside files of company tents, twenty paces in rear of the rear rank—the captain on the right, the lieutenants on the left.

The park is opposite the centre of the camp, forty paces in rear of the officers' tents. The carriages in files four paces apart; distance between ranks of carriages sufficient for the horses when harnessed to them; the park guard is twenty-five paces in rear of the park. The sinks for the men 150 paces in front; for the officers 100 paces in rear. The harness is in the tents of the men.

BIVOUACS.

769. A regiment of cavalry being in order of battle, in rear of the ground to be occupied, the colonel breaks it by platoons to the right. The horses of each platoon are placed in a single row, and fastened as prescribed for camps; near the enemy, they remain saddled all night, with slackened girths. The arms are at first stacked in rear of each row of horses; the sabres, with the bridles hung on them, are placed against the stacks.

The forage is placed on the right of each row of horses. Two stable-guards for each platoon watch the horses.

A fire for each platoon is made near the color line, twenty paces to the left of the row of horses. A shelter is made for the men around the fire, if possible, and each man then stands his arms and bridle against the shelter.

The fires and shelter for the officers are placed in rear of the line of those for the men.

The interval between the squadrons must be without obstruction throughout the whole depth of the bivouac.

The interval between the shelters should be such that the platoons can take up a line of battle freely to the front or rear.

The distance from the enemy decides the manner in which the horses are to be fed and led to water. When it is permitted to unsaddle, the saddles are placed in the rear of the horses.

In infantry, the fires are made in rear of the *color line*, on the ground that would be occupied by the tents in camp. The companies are placed around them, and, if possible, construct shelters. When liable to surprise, the infantry should stand to arms at daybreak, and the cavalry mount until the return of the reconnoitring parties. If the arms are to be taken apart to clean, it must be done by detachments, successively.

CANTONMENTS.

770. The cavalry should be placed under shelter whenever the distance from the enemy, and from the ground where the troops are to form for battle, permit it. Taverns and farm-houses, with large stables and free access, are selected for quartering them.

The colonel indicates the place of assembling in case of alarm. It should generally be outside the cantonment; the egress from it should be free; the retreat upon the other positions secure, and roads leading to it on the side of the enemy obstructed.

The necessary orders being given, as in establishing a camp, the picket and grand guards are posted. A sentinel may be placed on a steeple or high house, and then the troops are marched to the quarters. The men sleep in the stables, if it is thought necessary.

The above applies in the main to infantry. Near the enemy, companies or platoons should be collected, as much as possible, in the same houses. If companies must be separated, they should be divided by platoons or squads. All take arms at daybreak.

When cavalry and infantry canton together, the latter furnish the guards by night, and the former by day.

Troops cantoned in presence of the enemy should be covered by advanced guards and natural or artificial obstacles. Cantonments taken during a cessation of hostilities should be established in rear of a line of defence, and in front of the point on which the troops would concentrate to receive an attack. The general commanding-in-chief assigns the limits of their cantonments to the divisions, the

commanders of divisions to brigades, and the commanders of brigades post their regiments. The position for each corps in case of attack is carefully pointed out by the generals.

MARCHES.

771. For marching, the force, if a large one, is divided into as many columns as circumstances permit, without weakening any one too much. The object of the movement and the nature of the ground determine the order of march, the kind of troops in each column, and the number of columns. They ought to preserve their communications, and be within supporting distance of each other. The commander of each column ought to know the strength and direction of the others.

The advance and rear-guards are usually light troops; their strength and composition depend on the nature of the ground and the position of the enemy. They serve to cover the movements of the army, and to hold the enemy in check until the general has time to make his arrangements.

The "*general*" sounded one hour before the time of marching, is the signal to strike tents, to load the wagons, pack horses, etc., and send them to the place of assembling. The fires are then put out, and care taken to avoid burning straw, etc., or giving the enemy any other indication of the movements.

The "march" beats in the infantry, and the "advance" is sounded in the cavalry, in succession, as each is to take its place in the column. The infantry forms in column of companies or platoons; the cavalry in column of twos, fours, or of platoons; and the artillery by sections.

When the army should form suddenly to meet the enemy, the "*long-roll*" is beat, and "*to horse*" sounded. The troops form rapidly in front of their camp.

Batteries of artillery and their caissons move with the corps to which they are attached; the field train and ambulances march at the rear of the column; and the baggage with the rear-guard.

Cavalry and infantry do not march together, unless the proximity of the enemy makes it necessary.

In cavalry marches, when distant from the enemy, each regiment, and, if possible, each squadron, forms a separate column, in order to keep up the same gait from front to rear, and to trot, when desirable, on good ground. In such cases, the cavalry may leave camp later, and can give more rest to the horses, and more attention to the shoeing and harness

After the march has commenced, the troops habitually take the route step. The men should not be allowed to straggle, or leave the ranks for any but a necessary purpose, and then but for a few moments at a time.

The general and field officers frequently stop, or send officers to the rear, to see that the troops march in the prescribed order, and keep their distances.

In approaching a defile, the colonels are warned; they close their regiments as they come up; each regiment passes separately, at an accelerated pace, and in as close order as possible. The leading regiment having passed, and left room enough for the whole column in close order, halts, and moves again as soon as the last regiment is through. In the cavalry, each squadron, before quickening the pace to rejoin the column, takes its original order of march.

When a march is to be continued from day to day, the daily march should commence at a very early hour; the rate of going should be as regular as possible, not more than two and a half miles an hour; and the guides should be careful to preserve their distance, so as to prevent oscillations in the rear of the column, which are very fatiguing to the men. At the expiration of every hour, or a little more, the halt is sounded, when the men are allowed to take their ease for about ten minutes, when the march is resumed. In this way a day's march of twenty miles or more may be made by mid-day, or a little later: the men get their dinners after getting into camp, have the afternoon to rest, wash their clothing, clean their arms, etc., and are fresh for an early start on the following day.

In forced marches, or where the march is a long one, the halt at noon may be from an hour to an hour and a half, when the men may loosen their belts, take a lunch, smoke, and take their ease in any way

they choose, until the hour for resuming the march; the march may be continued until the middle of the afternoon, and still the men will have time to get their cup of hot coffee for supper, and make themselves comfortable for the night. The march of the first two days should be short, after that it may be increased to the required number of miles; the march from day to day should be as nearly of equal length as the convenience of fuel and water, etc., for camping purposes will admit.

772. A *camping party*, headed by the quartermaster of the command, precedes the column for the purpose of selecting and marking off the camp before the arrival of the troops. The camp is marked by placing camp-colors on the line intended for the color line of the command.

When the column reaches the camp-ground, the infantry comes into line on the color line; the cavalry in rear of its camp.

The number of men to be furnished for guards, pickets, and orderlies; the fatigue parties to be sent for wood and water for the cooks, etc.; the hour of marching, etc., are then announced by the brigadier-generals to the colonels, and by them to the field officers—the adjutant and captains formed in front of the regiment, the first sergeants taking post behind their captains. The adjutant then makes the details, and the first sergeants warn the men. The regimental officer of the day forms the picket, and sends the guards to their posts. The colors are then planted at the centre of the color line, and the arms are stacked on the line. The fatigue parties proceed to their duties, and the men of the company not on detail pitch the tents.

In the cavalry, each troop moves a little in rear of the point at which its horses are to be secured, and forms in one rank; the men then dismount; a detail is made to hold the horses; the rest stack their arms and fix the picket rope; after the horses are attended to, the tents are pitched, and each horseman places his arms at the side from the weather.

Artillery is brought into line, and the picket ropes fixed; the drivers unhitch, take off harness, secure their horses to the picket ropes, etc., while the cannoneers proceed to pitch the tents.

ARTICLE XIV.

THE STAFF.

Adjutant-General's Department.

773. The general duties of the adjutant-general and of the assistant adjutant-generals have been laid down under the head of army organization.

The adjutant-generals of the several States are required to make annual returns of the strength and condition of the militia, the state of the arms, etc., applicable to military purposes, to the governor or commander-in-chief of the State, and to forward a consolidated return of the militia, arms, etc., to the President of the United States through the adjutant-general of the United States army, agreeable to a form furnished by him.

Assistant adjutant-generals, in addition to the duties already specified in general terms, attend to the formation of their divisions or brigades, publish all orders received at division or brigade headquarters; issue all orders proceeding from the general commanding the division or brigade; preserve the records of the division or brigade; inspect and form division or brigade guards; prepare and keep the necessary rosters of the officers of the division or brigade; and regulate all details for duty depending upon the rosters.

774. It is the duty of the assistant adjutant-general of each brigade, to prepare a *morning report* of the brigade, every morning after the receipt of the regimental morning reports (see Form No 2), in accordance with Form No. 3, which is signed by him and the general commanding the brigade, and forwarded to division head-

quarters. The assistant adjutant-general of the division prepares, in like manner, a consolidated morning report of the division, to be transmitted to the adjutant-general of the army corps, or army of which the division forms a part. (See Form No. 4).

Thus the commanding-general is from day to day kept advised as to the exact strength and condition of his command.

The assistant adjutant-general of a detached brigade, division, or army in the field, has to prepare a monthly return of the command, to be signed by himself and his commanding general, to be forwarded to the adjutant-general at general head-quarters.

775. When orders are received at, or emanated from the head-quarters of an army or army corps, the adjutant-general, or assistant adjutant-general, as the case may be, transmits copies to each of the assistant adjutant-generals at division head-quarters; the assistant adjutant-generals at division head-quarters in turn transmit copies to the assistant at each of the brigade head-quarters, and from brigade head-quarters they go to the adjutants of regiments, by whom they are read to the troops on parade. When troops are on a campaign, the orders are given to officers of the staff, who report for them daily at the different head-quarters. See article "*Orders.*"

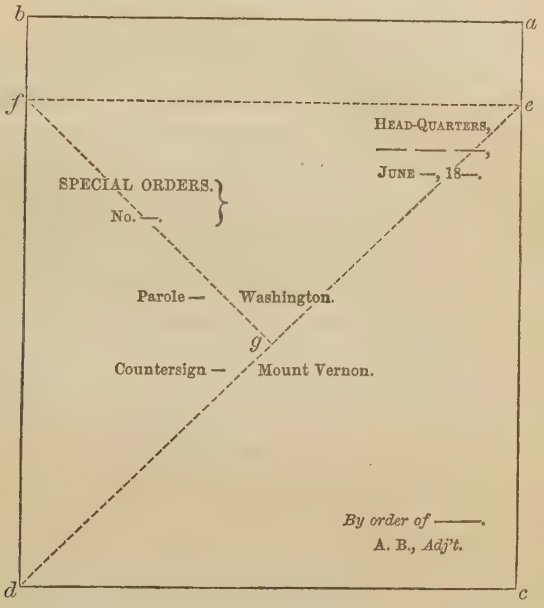
776. The *parole* and *countersign* emanate daily from head-quarters, in the form of "special orders;" copies of both under seal are transmitted to division head-quarters; from them to brigade head-quarters, and from brigade head-quarters to regimental head-quarters, provided there is any officer of the regiment who is entitled to the parole; if not, the countersign only is sent. Copies of one or both are sent to such persons of the division, brigade, or regiment, as may be entitled to them.

The parole is only sent to the field and regimental officers of the day, officers of guards, and to such other officers as may be entitled to visit and inspect guards.

The parole and countersign are usually sent out on small pieces of paper, so folded as to make it impossible to discover either without breaking the seal. Fig. 177 shows the manner in which the paper should be folded; *abcd* is the paper, of which *ac* is a little

longer than *ab*; it is folded so as to bring the edge *cd* to coincide with *df*, the point *c* being brought to *f*, the fold being along *de*;

Fig. 177.



the point *d* is then folded over upon *e*, making the fold along the line *fg*; the projecting edge *abfe* is then folded over, sealed near both ends, and the "countersign" is directed on the opposite side.

779. By the militia laws of Virginia, and most of the other States, the division and brigade inspectors are the chiefs of staff of their respective divisions and brigades, and they discharge the duties of assistant adjutant-generals in the divisions and brigades with which they serve.

778. The adjutants of regiments are the chiefs of the regimental staffs, and perform within their regiments the various duties required of them in the formation of their regiments, in all parades, inspec-

tions, manœuvres, formation of guards, etc. The adjutant publishes all orders received at regimental head-quarters, and issues all orders emanating from the head-quarters of the regiment; keeps a roster of the officers of the regiment, and makes all details for duty from the roster; has charge of the field-music, band, and pioneers; and discharges such other duty as his colonel may require.

At the *first sergeant's call*, the orderly sergeants of companies present the morning reports of their companies, made off in conformity with the requirements of Form No. 1, and signed by their captains. The adjutant then proceeds to make off the morning report of the regiment, as required in Form No. 2, which is signed by himself and the colonel, and transmitted to brigade head-quarters.

On receiving the parole and countersign from brigade head-quarters, he sends a copy of both to the colonel and to the regimental officer of the day, and copies of the countersign to the surgeon, and such other of the staff officers of the regiment as, from the nature of their duties, may require it.

The Quarter-Master's Department.

779. This department has to provide quarters and transportation for the troops; storage and transportation for all supplies; clothing; camp and garrison equipage; cavalry and artillery horses; fuel; forage; straw, and stationery. Its duties, when troops are in actual service, are very important, and embrace such a wide range of subjects, that a large number of agents, and thorough organization, are indispensable.

780. Under the head of quarters are included all buildings for the use of an army; as quarters for men and officers, hospitals, store-houses, offices, and stables. When quarters are to be occupied, they are allotted by the quarter-master at the station, under the control of the commanding officer.

The number of rooms and amount of fuel for officers and men are as follows:

	Rooms.			Cords of wood per month.*	
	As quarters.	As kitchen.	As office.	From May 1 to Sept. 30.	From Oct. 1 to April 30.
A Major-General	5	1	...	1	5
A Brigadier-General or Colonel	4	1	...	1	4
A Lieutenant-Colonel or Major	3	1	...	1	3½
A Captain or Chaplain	2	1	...	¾	3
Lieutenant	1	1	...	½	2
Military store-keeper	1	1	...	...	...
The General commanding the army	...	...	3	...	3
The commanding officer of a division or department, an assistant or deputy Quartermaster-General	...	...	2	...	2
The commanding officer of a regiment or post, Quartermaster, Assistant Quartermaster, or Commissary of Subsistence	...	...	1	...	1
An acting Assistant Quartermaster when approved by the Quartermaster-General	...	...	1	...	1
Wagon and forage master, Sergeant-Major, Ordnance-Sergeant, or Quartermaster-Sergeant	1	...	...	½	1
Each non-commissioned officer, musician, private, officer's servant, and washerwoman	...	...	...	½	⅙
Each necessary fire for the sick in hospital to be regulated by the surgeon and commanding officer, *not exceeding*	...	...	...	½	2
Each guard-fire to be regulated by the commanding officer, *not exceeding*	...	...	...	...	3
A Commissary or Quartermaster's store-house, when necessary, *not exceeding*	...	...	...	...	1
A regimental or post mess	1	...	...	...	1
To every six non-commissioned officers, musicians, and privates, servants and washerwomen, 225 square feet of room north of 38° N., and 256 square feet south of that latitude	...	...	...	...	...

* Or coal, at the rate of 1500 lbs. anthracite, or 30 bushels bituminous to the cord.

No officer shall occupy more than his proper quarters, except by order of the commanding officer when there is an excess of quarters at the station. But the amount of quarters shall be reduced pro rata by the commanding officer when the number of officers and troops make it necessary.

A mess room, and fuel for it, are allowed only when a majority of the officers of a post or regiment unite in a mess. Fuel for a

mess room should not be used elsewhere, or for any other purpose.

Fuel issued to officers or troops is public property for their use, and what is not actually consumed should be returned to the quartermaster's department. Fuel is issued only in the month when due.

In allotting quarters, officers have choice according to rank; but the commanding officer may direct the officers to be stationed convenient to their troops. An officer may select quarters occupied by a junior; but having made his choice, he must abide by it, and shall not again at the post displace a junior, unless himself displaced by a senior.

An officer arriving at a station should make requisition on the quartermaster for his quarters and fuel, accompanied by a copy of the order putting him on duty at the station. If in command of troops, his requisition should be for the whole, and designate the number of officers of each grade, of non-commissioned officers, soldiers, and servants.

781. When troops are moved, or officers travel with escorts or stores, the means of transport provided shall be for the whole command. Proper orders in the case, and an exact return of the command, including officers' servants and company women, will be furnished to the quartermaster who is to furnish the transportation. The baggage to be transported is limited to camp and garrison equipage, and officers' baggage. Officers' baggage should not exceed (mess-chest and all personal effects included) as follows:

	In the Field.	Changing Stations.
General officers	125 pounds.	1000 pounds.
Field officers	100 "	800 "
Captains	80 "	700 "
Subalterns	80 "	600 "

These amounts may be reduced *pro rata* by the commanding officer when necessary, and may be increased on transports by water, when proper, in special cases.

All the books, papers, and instruments necessary for the duties of staff officers; also regimental and company desks, and the medicine chests of medical officers, must be transported.

Estimates of the medical director, approved by the commanding officer, for the transportation of the hospital service, and the sick, will be furnished to the quartermaster.

The baggage trains, ambulances for the sick and wounded, and all the means of transport, continue in charge of the proper officers of the quartermaster's department, under the control of the commanding officers.

When supplies are turned over to the quartermaster for transportation, each package must be directed, and its contents marked on it.

On transports, cabin passage is provided for the officers, and reasonable and proper accommodation for the troops, and, when possible, a separate apartment for the sick.

782. The forage ration is fourteen pounds of hay, and twelve pounds of oats, corn, or barley. Forage is issued to officers only in the month when due, and at their proper stations, and for the horses actually kept by them in service, not exceeding in number as follows: In time of war, major-general, seven horses; brigadier-general, five; colonels who have the cavalry allowance, five; other colonels, four; lieutenant-colonels and majors who have the cavalry allowance, four; other lieutenant-colonels and majors, three; captains who have the cavalry allowance, three; all other officers entitled to forage, two: and in time of peace, general and field officers, three horses; officers below the rank of field officers in the regiments of cavalry, etc., two horses; all other officers entitled to forage, one horse.

No officer is allowed to sell forage issued to him. Forage issued to public horses or cattle is public property; whatever is not consumed is accounted for.

783. Issues of stationery are made quarterly, in amount as follows:

	Quires of writing paper.	Quires of envelope paper.	Number of quills.	Ounces of wafers.	Ounces of sealing wax.	Papers of ink powder.	Pieces of office tape.
Commander of an army, department, or division (what may be necessary for himself and staff for their public duty)	...	...	...	...	...	...	...
Commander of a brigade, for himself and staff	12	1	50	1	8	2	2
Officer commanding a regiment or post of not less than five companies, for himself and staff	10	1	40	1	6	2	2
Officer commanding a post of more than two and less than five companies	8	½	30	½	5	1	1
Commanding officer of a post of two companies	6	½	25	½	4	1	1
Commanding officer of a post of one company or less, and commanding officer of a company	5	½	20	½	3	1	1
A Lieutenant-Colonel or Major not in command of a regiment or post	3	¼	12	¼	2	1	1
Officers of the Inspector-General's, Pay, and Quartermaster's Department (the prescribed blank books and printed forms, and the stationery required for their public duty)	...	...	...	...	...	...	...
All officers, including Chaplains, not enumerated above, when on duty and not supplied by their respective departments	1½	⅛	6	⅛	1	½	½

Steel pens, with one holder to 12 pens, may be issued in place of quills, and envelopes in place of envelope paper, at the rate of 100 to the quire.

To each officer is allowed an inkstand, one stamp, paper-folder, sand-box, wafer-box, and as many lead pencils as may be required.

Necessary stationery for military courts and boards will be furnished on the requisition of the recorder, approved by the presiding officer.

Regimental, company, and post books, and printed blanks for the

officers of quartermaster and pay departments, will be procured by requisition on the quartermaster-general.

Postage and dispatches by telegraph on public business, paid by an officer, will be refunded to him on his certificate to the amount, and to the necessity of the communication by telegraph.

784. Supplies of clothing and camp and garrison equipage will be sent by the quartermaster-general to the officers of his department stationed with the troops. The contents of each package, and the sizes of the clothing in it, will be marked on it.

The allowance of camp and garrison equipage is as follows:

	Tents in the field.	Spades.	Axes.	Pickaxes.	Hatchets.	Camp Kettles.	Mess Pans.
A General	3	...	1	...	1	...	...
Field and staff officer above the rank of captain	2	...	1	...	1	...	...
Other staff officers and captains	1	...	1	...	1	...	...
Subalterns of a company, to every two	1	...	1	...	1	...	...
To every 15 foot and 13 mounted men	1	2	2	2	2	2	5

Bed sacks and straw are provided for troops in garrison. Requisitions will be sent to the quartermaster-general for the authorized flags, colors, standards, guidons, drums, fifes, bugles, and trumpets.

Commanders of companies draw the clothing of their men, and the camp and garrison equipage for the officers and men of their company. The camp and garrison equipage of other officers is drawn on their own receipts.

When clothing is needed for issue to the men, the company commander will procure it from the quartermaster on requisition, approved by the commanding officer.

Commanders of companies take receipts of their men for the clothing issued to them, on a receipt roll, witnessed by an officer or non-commissioned officer. Each soldier's clothing account is kept

by the captain in a company book, the account setting forth the money value of the clothing received and receipted for.

785. Every separate command should have its quartermaster; if it is a regiment, or less, one of the subalterns may discharge the duty by order of the commanding officers; if a brigade or division, an officer of the quartermaster department is assigned by the quartermaster-general. In the volunteers and militia, quartermasters are appointed by the colonels, brigadier-generals, or major-generals of regiments, brigades, or divisions; but while quartermasters so appointed must obey the directions of their commanding officers, their accountability as officers of the quartermaster's department is just the same.

All requisitions for supplies, for transportation, forage, etc., are made upon the quartermaster of the command requiring them; if it is in his power to fill the requisition, he does so; if not, he makes his requisition upon the next higher officer of the department, and so on.

In order to facilitate the operations of the department, depots of supplies, in charge of *depot quartermasters,* are established at convenient points, and from which quartermaster's supplies are drawn upon proper requisition.

In order to secure a proper accountability on the part of the officers of the quartermaster's department, the quartermaster-general should institute a proper system of returns, accounts, etc., requiring all officers of the department to conform strictly to their requirements, and in the settlement of their accounts to present satisfactory vouchers for all money or public property expended. For the necessary forms see the general regulations of the United States army.

Subsistence Department.

786. Every command should have its commissary or assistant commissary; when the command is less than a regiment, the same officer may, and usually does, discharge the duties of both commissary and quartermaster.

Subsistence supplies are issued on requisitions approved by the

commanding officer, in the same way that quartermaster's supplies are issued. The commissary must, however, so regulate his own requisitions upon purchasing or depot commissaries, as to keep on hand a sufficient supply to meet the wants of the troops.

Good and sufficient store-room for the subsistence stores will be procured by the commissary from the quartermaster.

787. The ration is three-fourths of a pound of pork or bacon, or one and a fourth pounds of fresh or salt beef; eighteen ounces of bread or flour, or twelve ounces of hard bread, or one and a fourth pounds of corn meal, and at the rate, to one hundred rations, of eight quarts of peas or beans, or, in lieu thereof, ten pounds of rice; six pounds of coffee; twelve pounds of sugar; four quarts of vinegar, one and a half pounds of tallow, or one and a fourth pounds of adamantine, or one pound sperm candles; four pounds of soap, and two quarts of salt.

On a campaign, or on marches, or on board transports, the ration of hard bread is one pound.

Fresh beef, when it can be procured, should be furnished at least twice a week; the beef to be procured, if possible, by contract.

788. Company provision returns are usually made every week or ten days, in accordance with Form No. 12; the return must be signed by the commanding officer of the regiment, or post, when the command is less than a regiment.

When it is practicable, a consolidated return for the regiment or post is made and signed by the commanding officer (see Form 13); but the return must state the allowance for each company, in order to prevent any confusion in the issues.

Issues to the hospital are made on returns by the medical officer, for such provisions only as are actually required for the sick and the attendants. The cost of such parts of the ration as are issued is charged to the hospital at contract or cost prices, and the hospital is credited by the whole number of complete rations due through the month at contract or cost prices; the balance, constituting the *hospital fund*, or any portion of it, may be expended by the commissary, on the requisition of the medical officer, in the purchase of any article for the subsistence or comfort of the sick.

An extra issue of fifteen pounds of candles per month may be made to the principal guard of each camp or garrison, on the order of the commanding officer. Extra issues of soap, candles, and vinegar, are permitted to the hospital when the surgeon does not avail himself of the commutation of the hospital ration, or when there is no hospital fund; salt in small quantities is issued for public horses and cattle. When the officers of the medical department find antiscorbutics necessary for the health of the troops, the commanding officer may order issues of fresh vegetables, pickled onions, saur kraut, or molasses, with an extra quantity of rice and vinegar. Potatoes are usually issued at the rate of one pound per ration, and onions at the rate of three bushels in lieu of one of beans. Troops at sea are recommended to draw rice and an extra issue of molasses in lieu of beans.

When a soldier is detached on duty, and it is impracticable to carry his subsistence with him, it will be commuted at seventy-five cents a day, to be paid by the commissary, when due, or in advance, on the order of the commanding officer. The ration of a soldier stationed where he has no opportunity of messing, is commuted at forty cents.

789. As in the case of the quartermaster's department, the commissary-general should organize such a system of returns, accounts, etc., on the part of the officers of the department, as to ensure a proper accountability on their part. See the army regulations for the necessary forms.

Medical Department.

790. The senior medical officer, on duty with any body of troops in the field, will, unless otherwise specially ordered, be *ex officio* the medical director; and will have the general control of the medical officers, and the supervision of the hospitals under their charge.

The senior medical officers of a hospital distribute the patients, according to convenience and the nature of their complaints, into wards or divisions, under the particular charge of the several assistant surgeons, and should visit them himself each day, as frequently as the state of the sick may require.

His prescriptions of medicine and diet are written down at once in the proper register, with the name of the patient and the number of his bed; the assistants fill up the diet table for the day, and direct the administration of the prescribed medicine.

He should enforce the proper hospital regulations to promote health and prevent contagion, by ventilated and not crowded rooms, scrupulous cleanliness, frequent changes of bedding, linen, etc.

791. At surgeon's call, the sick then in the companies will be conducted to the hospital by the first sergeants, who will each hand to the surgeon, in his company book, a list of all the sick of the company, on which the surgeon shall state who are to remain or go into hospital; who are to return to quarters as sick or convalescent; what duties the convalescents in quarters are capable of; what cases are feigned; and any other information in regard to the sick of the company he may have to communicate to the captain. He will then make a morning report of the sick to the commanding officer (Form No. 17).

Pay Department.

792. The troops should be paid in such manner that the arrears shall at no time exceed two months, unless the circumstances of the case render it unavoidable. The paymaster-general should take care, by timely remittances, that the paymasters have the necessary funds to pay the troops.

The payments, except to officers and discharged soldiers, are made on muster and pay rolls; those of companies and detachments, are signed by the company or detachment commander; those of the hospital are signed by the surgeon; and all muster and pay rolls are signed by the mustering and inspecting officer.

Copies of the necessary blank forms for muster and pay rolls may always be obtained from the office of the Adjutant-General U. S. Army, Washington. These blanks are too large to be properly represented in a work like this.

When a company is paraded for payment, the men should be called to the pay table one at a time, commencing with the non-commissioned officers, who are paid according to rank; the privates

are called in alphabetical order. Every member of the company, or detachment, must, on receiving his pay, sign his name opposite his name in the pay roll, and his signature must be witnessed by the captain, or some other officer of the company, or detachment, whose duty it is to be present when the company, or detachment, is paid.

Officers are paid on certified accounts, as in Form 5.

FORM No. 6.

Requisition for Fuel for ——— Company, ——— Regiment of ———, commanded by ———, for the month of 18—

STATION.	Captains.	Subalterns.	Non-commissioned officers, musicians, and privates.	Laundresses and servants.	Total.	Monthly allowance to each, in cords.	TOTAL ALLOWANCE.					REMARKS.
							Wood.			Coal.		
							Cords.	Feet.	Inches.	Bushels.	Pounds.	
Total.....												

I certify, on honor, that the above requisition is correct and just, and that fuel has not been drawn for any part of the time above charged.

R. S., *Commanding Company.*

Received, ———, 18—, of ———, Assistant Quartermaster, ———, ——— cords ——— feet ——— inches of wood and ——— of coal, in full of the above requisition.

(Signed duplicates.)

R. S., *Commanding Company.*

FORM No. 7.

Requisition for Fuel for ———, stationed at ———, for the month of ———, 18—.

				Wood.			Coal.		REMARKS.
				Cords.	Feet.	Inches.	Bushels.	Pounds.	
For myself.....									
For private servant.....									
Total.....									

I certify, on honor, that the above requisition is correct and just, and that I have not drawn fuel for any part of the time above charged.

Received, ———, 18—, of ———, Assistant Quartermaster ————, ——— cords ——— feet ——— inches of wood and ——— of coal, in full of the above requisition.

Note.— This form will be used for individual officers, hospitals, guards, etc

FORM No. 8.

Requisition for Forage for Public Horses, Mules, and Oxen, in the service of ——— for ——— days, commencing the ——— day of ———, 18—, and ending on the ——— of ———, 18—, at ———.

Date of requisition.	Number of horses.	Number of mules.	Number of oxen.	Total number of animals.	Number of days.	Number of rations.	Daily Allowance to each Animal.					Total Allowance.					Remarks.
							Pounds of corn.	Pounds of barley.	Pounds of oats.	Pounds of hay.	Pounds of fodder.	Corn. Pounds of.	Barley. Pounds of.	Oats. Pounds of.	Hay. Pounds of.	Fodder. Pounds of.	
Required.....																	
On hand, to be deducted.....																	
To be supplied.....																	

I certify, on honor, that the above requisition is correct and just; that I have now in service the number of animals for which forage is required; and that forage has not been received for any part of the time specified.

Received at ———, on the ——— day of ———, 18—, of ———, Quartermaster ———, ——— pounds of corn, ——— pounds of barley, ——— pounds of oats, ——— pounds of hay, ——— pounds of fodder, in full of the above requisition.

(Signed duplicates.)

FORM No. 9.

Requisition for Forage for ——— Private Horses in the service of ———, ———, at ———, for ——— days, commencing the ——— of ———, and ending the ——— of ———, 18—.

DATE.	PERIOD.		Number of horses.	DAILY ALLOWANCE FOR EACH.			TOTAL ALLOWANCE.						REMARKS.
	From.	To.		Corn.	Oats.	Hay.	Corn.		Oats.		Hay.	Fodder.	
				Pounds.	Pounds.	Pounds.	Bushels, 56 lbs.	Pounds.	Bushels, 32 lbs.	Pounds.	Pounds.	Pounds.	
Total.....													

I certify, on honor, that the above requisition is correct and just, and that I have not drawn forage for any part of the time above charged.

Received at ———, the ——— of ———, 18—, of ———, Assistant Quartermaster ———, ——— bushels corn, ——— bushels oats, ——— pounds oats, ——— pounds fodder, in full of the above requisition.

(Signed duplicates.)

FORM No. 10.

Requisition for Straw for ——— Company, ——— Regiment of ———, commanded by ———, for the month of 18—.

STATION.	Non-commissioned officers, musicians, and privates.	Laundresses.	Servants.	Total Drawn For.	Monthly Allowance to Each. Pounds.	Total Allowance. Pounds.	REMARKS.
Total							

I certify, on honor, that the above return is correct and just, and that straw has not been drawn for any part of the time charged.

G. H., *Commanding Company.*

Received at ———, the ——— of ———, 18—, of ———, Assistant Quartermaster, ————, pounds of straw, in full of the above requisition.

(Signed duplicates.)

G. H., *Commanding Company.*

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FORM No. 11.

Requisition for Stationery for ———, stationed at ———, for the ———, commencing on the ——— of ———, and ending on the ——— of ———, 18—.

	Quires of letter paper.	Quires of foolscap paper.	Sheets of cartridge paper.	Number of quills.	Ounces of wafers.	Ounces of sealing-wax.	Pieces of tape.	Papers of ink powder.						

I certify that the above requisition is correct, and that I have not drawn stationery for any part of the time specified.

Received at ———, on the ——— of ———, 18—, of ———, Assistant Quartermaster ———, ——— quires of letter paper, ——— quires of foolscap paper, ——— quills, ——— ounces of wafers, ——— ounces of sealing-wax, ——— pieces of tape, ——— sheets of cartridge paper, ——— papers of ink powder.

(Signed duplicates.)

FORM No. 12

Provision Return for Captain ——, Company ——, Regiment of ——, for —— days, commencing ——, and ending ——.

POST OR STATION.	Number of men.	Number of women.	Total.	Number of days.	Number of rations.	RATIONS OF										REMARKS.
						Fresh beef.	Pork.	Flour.	Beans.	Rice.	Coffee.	Sugar.	Vinegar.	Candles.	Soap.	Salt.	

The A. C. S. will issue agreeably to the above return.

—— ——, *Commanding Company.*

—— ——, *Commanding Post or Regiment.*

FORM No. 13.

Consolidated Provision Return for ——— Regiment of ———, for ——— days, commencing ———, and ending ———.

POST OR STATION.	Number of men.	Number of women.	Total.	Number of days.	Number of rations.	RATIONS OF										REMARKS.
						Fresh beef.	Pork.	Flour.	Beans.	Rice.	Coffee.	Sugar.	Vinegar.	Candles.	Soap.	Salt.	

——— ———, *Commanding Regiment.*

The A. C. S. will issue on the above return.

——— ———, *Commanding Officer.*

TABLE,

Showing the Quantity in Bulk of any Number of Rations, from 1 to 100,000.

Number of Rations.	Pork.			Beef.		Flour.			Beans.			Rice.		Coffee.		Sugar.		Vinegar.			Candles.		Soap.		Salt.		
	Barrels.	Pounds.	Ounces.	Pounds.	Ounces.	Barrels.	Pounds.	Ounces.	Bushels.	Quarts.	Gills.	Pounds.	Ounces.	Pounds.	Ounces.	Pounds.	Ounces.	Gallons.	Quarts.	Gills.	Pounds.	Ounces.	Pounds.	Ounces.	Bushels.	Quarts.	Gills.
1	.....	...	12	1	4	.....	1	2	.....	...	0.64	.....	1.6	.....	0.96	.....	1.92	.....	...	0.32	.....	0.24	.....	0.64	...	...	0.16
2	.....	1	8	2	8	.....	2	4	.....	...	1.28	.....	3.2	.....	1.92	.....	3.84	.....	...	0.64	.....	0.48	.....	1.28	...	...	0.32
3	.....	2	4	3	12	.....	3	6	.....	...	1.92	.....	4.8	.....	2.88	.....	5.76	.....	...	0.96	.....	0.72	.....	1.92	...	...	0.48
4	.....	3	...	5	...	.....	4	8	.....	...	2.56	.....	6.4	.....	3.84	.....	7.68	.....	...	1.28	.....	0.96	.....	2.56	...	...	0.64
5	.....	3	12	6	4	.....	5	10	.....	...	3.20	.....	8.0	.....	4.80	.....	9.60	.....	...	1.60	.....	1.20	.....	3.20	...	...	0.80
6	.....	4	8	7	8	.....	6	12	.....	...	3.84	.....	9.6	.....	5.76	.....	11.52	.....	...	1.92	.....	1.44	.....	3.84	...	...	0.96
7	.....	5	4	8	12	.....	7	14	.....	...	4.48	.....	11.2	.....	6.72	.....	13.44	.....	...	2.24	.....	1.68	.....	4.48	...	...	1.12
8	.....	6	...	10	...	.....	9	...	.....	...	5.12	.....	12.8	.....	7.68	.....	15.36	.....	...	2.56	.....	1.92	.....	5.12	...	...	1.28
9	.....	6	12	11	4	.....	10	2	.....	...	5.76	.....	14.4	.....	8.64	1	1.28	.....	...	2.88	.....	2.16	.....	5.76	...	...	1.44
10	.....	7	8	12	8	.....	11	4	.....	...	6.40	1	.....	.....	9.60	1	3.20	.....	...	3.20	.....	2.40	.....	6.40	...	...	1.60
20	.....	15	...	25	...	.....	22	8	.....	1	4.80	2	.....	1	3.20	2	6.40	.....	...	6.40	.....	4.80	.....	12.80	...	...	3.20
30	.....	22	8	37	8	.....	33	12	.....	2	3.20	3	.....	1	12.80	3	9.60	.....	1	1.60	.....	7.20	1	3.20	...	...	4.80
40	.....	30	...	50	...	.....	45	...	.....	3	1.60	4	.....	2	6.40	4	12.80	.....	1	4.80	.....	9.60	1	9.60	...	...	6.40
50	.....	37	8	62	8	.....	56	4	.....	4	.....	5	.....	3	.....	6	.....	.....	2	.....	.....	12.00	2	.....	...	1	.....
60	.....	45	...	75	...	.....	67	8	.....	4	6.40	6	.....	3	9.60	7	3.20	.....	2	3.20	.....	14.40	2	6.40	...	1	1.60
70	.....	52	8	87	8	.....	78	12	.....	5	4.80	7	.....	4	3.20	8	6.40	.....	2	6.40	1	0.80	2	12.80	...	1	3.20
80	.....	60	...	100	...	.....	90	...	.....	6	3.20	8	.....	4	12.80	9	9.60	.....	3	1.60	1	3.20	3	3.20	...	1	4.80
90	.....	67	8	112	8	.....	101	4	.....	7	1.60	9	.....	5	6.40	10	12.80	.....	3	4.80	1	5.60	3	9.60	...	1	6.40
100	.....	75	...	125	...	.....	112	8	.....	8	.....	10	.....	6	.....	12	.....	1	...	.....	1	8.00	4	.....	...	2	.....
1,000	3	150	...	1,250	...	5	145	...	2	16	.....	100	.....	60	.....	120	.....	10	...	.....	15	.....	40	.....	...	20	.....
10,000	37	100	...	12,500	...	57	78	...	25	...	.....	1,000	.....	600	.....	1,200	.....	100	...	.....	150	.....	400	.....	6	8	.....
100,000	375	...	...	125,000	...	573	192	...	250	...	.....	10,000	.....	6,000	.....	12,000	.....	1,000	...	.....	1,500	.....	4,000	.....	62	16	.....

FORM No. 14.

REQUISITION FOR SUPPLIES OF MEDICINES, ETC.

Requisition for Medicines (hospital stores, etc.) required at ——, for ——.

Acet. plumbi, lb. i.
Pulv. cinchonæ, lbs. x.
etc., etc.
etc., etc.

I certify that the medicines above required are necessary for the sick at ——.

—— ——, *Surgeon.*

Approved: —— ——, *Commanding Officer.*

Received, ——, 18—, of ——, the articles above enumerated.

—— ——, *Surgeon.*

FORM No. 15.

Register.

NAMES.	
Rank.	
Regiment or corps.	
Company.	
COMPLAINT.	
Admitted.	
Returned to duty.	
Deserted.	
Discharged from service.	
Sent to general hospital.	
On furlough.	
Died.	
REMARKS.	

FORM No. 16.

Prescription Book, Diet Book, and Diet Table.

NAMES.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.

The spaces in the Prescription Book are to be filled up with the prescription at length, the times of administering the medicines, and the quantities to be given at each time. The diet of the patients will be divided into full, half, and low, to be designated in the Diet Book by the letters F., H., and L.; and in order that the steward may have precise instructions for delivering the hospital stores, etc., the surgeon will, from time to time, insert in the Diet Book written directions of the quantity of each article in his store-room, which he may think necessary to each degree of diet. To each ten patients, for example, on low diet, a certain quantity of tea, sugar, etc. To each ten on half diet, a certain quantity of rice, milk, etc. These proportions will soon become familiar to the steward, who has only to refer to the letters in the Diet Book to ascertain the whole quantity of any article to be delivered for the day, as well as the quantity for each ward. When any liquor is directed, or any other article not contained in these general instructions of the surgeon, the precise quantity directed for each patient will be noted in the Diet Book. The Diet Tables are to be filled up daily from the Diet Book, and hung up in each ward of a general hospital.

FORM No. 17.

Morning Report of the Surgeon of a Regiment, Post, or Garrison.

DATE.																		
COMPANY.																		
Remaining at Last Report.		Taken sick.	Total.		Returned to duty.	Discharged.	Sent to general hospital.	Died.	Remaining.		REMARKS.							
In hospital.	In quarters.		In hospital.	In quarters.					In hospital.	In quarters.								

ARTICLE XV.

BATTLES.

793. A battle is a general action between two armies; if only a small portion of the forces are engaged, it is usually denominated a *combat*, an *affair*, a *skirmish*, etc., according to the character of the engagement. Battles are of three kinds: 1st. *Defensive* battles, or those fought in a chosen position by an army which awaits the attack of an enemy. 2d. *Offensive* battles, or those made by an army which attacks the enemy drawn up in position and awaiting the attack. 3d. The *mixed* or *unforeseen* battles, which occur between two armies meeting on the march.

794. When an army awaits the attack, it takes its position and forms its line of battle according to the nature of the ground, and the supposed character and strength of the enemy's forces. When some important position is to be protected by an army, such as when a siege is to be covered, a capital to be protected, depots of supplies guarded, or some point important to the operations of the campaign is to be held, such battles are usually given.

795. The first condition to be satisfied by a position is, that the openings shall be more favorable for falling on the enemy when he has approached to the desired point, than those which he can have for attacking our line. Second, the artillery should be so posted as to command all the avenues by which the enemy can approach. Third, we should, if possible, have good ground upon which to manœuvre our troops unseen by the enemy. Fourth, we should have a full view of the enemy as he advances to the attack. Fifth, the flanks of our line should be well protected by natural or artificial obstacles. Sixth, we should have the means for effecting a retreat in the event of a defeat, without exposing the army to destruction.

It is seldom that all these conditions can be satisfied at the same time; sometimes the very means of satisfying one may be in violation of another. A river, a forest, or a mountain, which secures the flank of an army, may become an obstacle to a retreat; again, the position may be difficult of attack in front, or on the wings, and at the same time unfavorable for retreat.

We may sometimes be obliged to make the attack at all hazards, to prevent the junction of two of the enemy's corps to cut off forces that are separated from the main body by a river, etc. As a general rule, the attacking force has a moral superiority over the defensive, but this advantage is frequently counterbalanced by other conditions.

796. When we are acting on the *offensive*, the main thing is to seize upon the decisive point of the field. This point is determined by the configuration of the ground, the position of the contending forces, the object to be attained by the battle; or by a combination of these.

797. It frequently happens that battles result from the meeting of armies in motion, both parties acting on the offensive. Indeed, an army that is acting on the defensive may, on the approach of the enemy, advance to meet him while on the march. Battles of this kind may partake of the mixed character of offensive and defensive actions, or they may be in the nature of a surprise to both armies.

798. An *order of battle* is the particular disposition given to the troops for a determined manœuvre on the field of battle. A *line of battle* is the general name applied to troops drawn up in their usual order, without any determined manœuvre; it may apply to defensive positions or to offensive operations, where no particular object has been decided on. Military writers lay down twelve orders of battle, viz.:

1st. The simple parallel order, in which the two armies occupy parallel lines. This is regarded as the worst possible position for a battle, for the two parties here fight with equal chances, and the combat must continue until accident, superior numbers, or mere physical strength decides the day; skill can have but little influence in such a contest.

2d. The parallel order with a crotchet, in which one of the wings

is thrown forward or back, giving the line this form. This order is sometimes used in a defensive position, and in the offensive with the crotchet thrown forward. Wellington, at Waterloo, formed the parallel order with the retired crotchet on the right flank.

3d. The parallel order reinforced on one or both wings. This order may in certain cases secure the victory, but it has many objections. The weak part of the line is too near the enemy, and may, notwithstanding the efforts of the general to the contrary, become engaged, and run the risk of defeat, thereby counterbalancing the advantages gained by having a strong point. Neither will the reinforced part of the line be able to profit by any success it may gain, and take the enemy's line in flank and rear, without endangering its connection with the rest of the line.

4th. The parallel order reinforced on the centre. The same objections are applicable to this as to the last.

5th. The simple oblique order, in which the two lines are oblique to each other.

6th. The oblique order reinforced on the assailing wing. This is suited to an inferior army attacking a superior, for it enables the general to carry the mass of his force on a single point of the enemy's line, while the weaker wing is out of reach of immediate attack, and holds the remainder of the enemy's line in check by acting as a reserve ready to be concentrated on the favorable point as occasion may require.

7th. The perpendicular order on one or both wings, in which the attacking force occupies one or more lines perpendicular to the defensive, and on one or both of its flanks. A battle may begin with this order, but soon it must change to the oblique. An attack upon both wings can only be made with safety, when the attacking force is vastly superior.

8th. The concave order, in which the army occupies a curve concave to the enemy; in this order the wings are in advance of the centre. It may be used with advantage in some cases and in particular localities.

9th. The convex order, in which the army is disposed in a curve convex to the enemy, the centre being thus thrown in advance of

the wings. This order is sometimes formed to cover a defile, to attack a concave line, or to oppose an attack before or after the passage of a river.

10th. The order by echelon on one or both wings, in which the army is arranged *in echelon* from right to left, or from left to right. This order on one wing may be frequently employed with advantage; but if it be made on both wings, there is the same objection to its use as to the perpendicular order on both wings.

11th. The order by echelon on the centre, in which the centre is in the advance, and the wings are disposed *in echelon* to the right and left. This order may be employed with success against an army formed in a thin or too extended line of battle, for then it would penetrate and break the line.

The echelon order possesses many advantages. The several corps composing the army may manœuvre separately, and, consequently, with greater ease. Each echelon covers the flank of the one which precedes it; and all may be combined to effect a given object, and extended without weakening any part too much.

12th. The combined orders of attack in columns on the centre and one wing at the same time. This is better suited than either of the others for attacking a strong line.

799. No general rule can be laid down as to which of these orders of battle should be employed, or whether either should be exclusively followed throughout the battle. The question must be decided by the general himself on the ground, where all the circumstances may be duly considered. An order well suited to one position might be the worst possible in another.

Whatever the plan adopted by the attacking general, he should endeavor to dislodge the enemy, by piercing or turning his line. If he can conceal his real intentions and deceive the enemy respecting the true point of attack, success will be more certain.

800. We will now discuss the particular manner of arranging the troops on the line of battle, or the manner of employing each arm, beginning with the *infantry*, as this is the most important.

Position and formation. — On the field of battle, whether the object be to attack or defend, the infantry is divided into three

bodies — an advanced-guard, the main body, and a reserve. Their relative proportion will depend upon the total force, and the character of the position occupied. The advanced-guard must be of sufficient strength to hold the enemy in check, but at the same time, the main body, upon which the brunt of the action should fall, must not be left of insufficient force, by unnecessarily increasing the advanced-guard; and the reserve should be strong enough to repair any disaster that may befall the main body; or to profit by its success in accomplishing the complete overthrow of the enemy.

These three bodies are separated from each other by intervals which will depend upon the nature of the ground. The advanced guard occupying the front; the main body at a distance from 150 to 300 paces in its rear; and the reserve at a like interval in rear of the main body. Where the ground, for example, is undulating, and therefore favorable to masking the troops from the enemy's fire, these intervals may, if requisite, be reduced to 80 or 100 paces.

The troops composing these three bodies will be formed either in columns of battalions, or be deployed, according to the circumstances under which they may be placed. For an attack, for evolution, or for defence against cavalry, the formations of columns of battalions is best. To repel the enemy's attack by a fire, and in some cases, to present a less favorable mark to his artillery, the battalions are deployed. The battalions, whether deployed or in column, preserve the proper intervals for evolutions; these intervals may be increased in obstructed ground without weakening the defence.

The battalions composing the main body may be drawn up in one or two lines. The latter usually obtains only when a large force is present. In this case the reserve no longer holds the position of a third line, as in the other; but forms an independent body, to be used according to the emergency, the second line supporting the battalions of the first, and, for this purpose, occupying positions to the rear opposite to their intervals.

801. *Defence.* — When the position is taken up to receive the enemy's attack, and there either to remain on the defensive, or to assume the offensive, as circumstances may justify, the advanced-

guard will be posted on the ground most favorable to hold the enemy in check, and so force him, by disputing it with tenacity, to develop his means and plans. This is best done by a judicious combat of skirmishers, who, for this purpose, are thrown forward 300 or 400 paces to feel the enemy, and are only reinforced when closely pressed.

Whether the advanced-guard shall maintain its ground obstinately until reinforced by the main body, or whether it shall fall back, either on the flanks or to the rear of the main body, must be determined by the strength of the position. If this be so strong that the enemy's loss in carrying it must be great, then it should be pertinaciously maintained; in the contrary case it must, after a suitable show of resistance, be abandoned.

As a general rule, troops should be placed as much out of view as practicable, before they go into action, by taking advantage of covers offered by the ground. The main body should be kept masked in this way until it is called to engage the enemy. If it advance to support the advanced-guard, it will usually attack with the bayonet; if the advanced-guard is called in, the main body will usually receive the enemy by its fire; the battalions being deployed for this purpose. If the enemy is staggered by this fire, or, in advancing, shows, by the wavering or confusion of his line, a want of confidence, the fire may be followed up either by a charge of the troops in line, or they may be formed in columns of attack before charging, if the enemy perseveres in his onward movement. A charge by a column, when the enemy is within 50 paces, will prove effective, if resolutely made.

The reserve is composed of the most reliable troops. It should be distinguished for cool courage; acting under all circumstances, either defensive or offensive, with circumspection and determined resolution.

As the object of the reserve is to infuse greater energy into the action of the main body, and, if necessary, to strike a last and decisive blow; it should be kept masked from the enemy's fire and view until called into action. The proper moment for engaging the reserve is either when the enemy has been shaken in his attack by

the resistance offered by the main body, or when the latter is unable farther to resist the enemy's efforts. If engaged too soon, the resistance offered to the reserve may prevent its making a decisive blow; if not engaged in time, the main body may be too far exhausted and disorganized to rally.

In cases where the reserve forms a second line, to support the main body, it should approach the first line when it becomes engaged, to be ready to replace it when circumstances may render it necessary. The advanced-guard, in such cases, should retire to the rear, to act as a reserve.

802. *Attack.* — In the attack of infantry, the same fundamental dispositions are made as for the defensive. The advanced-guard will not throw forward its skirmishers until they are near enough to engage the enemy. The line of skirmishers should be strongly supported, and will press the enemy with vigor and without relaxation. If the force engaged be small, the main body will regulate its movements by those of the line of skirmishers; if considerable, the reverse will obtain.

The main body and reserve follow the advanced-guard in column, preserving the requisite intervals. The columns should take every advantage of the ground to mask their movements; getting rapidly over any where they are much exposed to fire. So soon as the advanced-guard is checked, it will fall back either on the flanks of the columns, or to the rear; and the main body will be immediately brought into action, either by deploying and opening its fire, or by a vigorous charge with the bayonet. If the main body falters in its attack, or gives any signs of want of resolution, the reserve should advance at once through the intervals, and make a vigorous charge with the bayonet.

If the attack by the main body is made with the bayonet, the interval between it and the columns of the reserve may be lessened to 80 or 100 paces. The flanks of the columns of attack, and the intervals between them, should be occupied by skirmishers. This is an important precaution; as, by forcing the enemy to deliver his fire before the columns have reached within a destructive range, the main obstacle to their onward movement will be removed.

803. *Pursuit.* — If the assailed retires, the pursuit may be conducted with system and in good order. The line nearest the enemy will throw forward a few troops in pursuit; which, in most cases, will be preceded by skirmishers. The line in close order will follow these troops until it attains a good position to receive the enemy, should he make an offensive movement, when it will be halted and formed in readiness for action. A pursuit by infantry alone cannot be pushed far, even should the enemy retire without any order, or show of resistance, as the retreating force will soon distance their pursuers.

804. *Retreat.*—When, either in the defensive, or offensive, it becomes necessary to retire, the first point to be attended to is to withdraw the troops engaged; either to a good position to their rear, where they can halt and face the enemy, or else behind the line in their rear, which should hold the assailants in check, and allow the retreating troops to fall back in good order. Having fairly got disengaged, dispositions must be promptly made to withdraw from the field. This may be done by the entire force moving off together, if the enemy shows no disposition to follow up his success with energy; or, in the contrary case, by retiring by successive portions; the line which withdraws falling some 150 paces by the rear of the one by which it is covered, whilst falling back, and then forming, to cover in turn the retreat of the latter.

The dispositions made in the retreat will depend entirely upon the character of the enemy's pursuit, and the features of the ground. It will usually be made in columns, covered by skirmishers, if the pursuit is made by infantry alone; if by cavalry, the retreat must be made with great circumspection; the troops retiring slowly and in good order, adopting the formation against cavalry; never hastening the march, unless near a good position for defence, which should be attained as rapidly as possible, unless closely pressed by the cavalry.

If it be necessary to continue the retreat for some marches, under the eye of the enemy, a rear-guard must be formed; selecting from a fourth to a third of the entire force, for this service. The main duty of the rear-guard is to hinder the enemy from pressing too closely on the main body; and it should therefore, under no circum-

stances, allow itself to be forced back upon the main body. The dispositions adopted by the rear-guard will depend upon the features of the ground; its rear will usually be covered by a line of skirmishers. The rear-guard will keep within good supporting distance of the main body; and, when pressed by the enemy, the latter, whenever a favorable position offers, will halt and form; to cover the former, and force the enemy to greater circumspection.

805. *Measures for protracting an engagement.*—In the attack, as in the defence, it may frequently become an object to protract an engagement, without coming to any decisive result; either for the purpose of holding a position for a certain time, to favor other objects, as the arrival of reinforcements; or to occupy an adversary upon one point, whilst a decisive blow is preparing on another. This game can be played only upon ground favorable to alterations from the defensive to the offensive; and should only be intrusted to troops thoroughly conversant with the duties of skirmishers. The main body is kept some two thousand paces to the rear of the skirmishers in such affairs; taking advantage of the ground, and making suitable dispositions of the troops to avoid the effects of the enemy's artillery. Small columns are thrown forward between itself and the troops engaged, which take post in covered ground, to be on hand to support the skirmishers. The troops engaged should be promptly reinforced, when the enemy presses onward; and attempts should be made, by charging him in flank, to force him to retire. The troops in action should be frequently relieved, and the opportunity should be seized, when the fresh troops come up, to make an onward movement on the enemy, and force him from any points he may have gained.

806. *Defence against cavalry.*—When infantry is threatened by cavalry, the proper formation to repel its charge, is that of squares. If but one square is formed, it must rely on its own resources to beat off the enemy; but when there are several they may give mutual support, by bringing a flank fire from one upon a force advancing or either of the two contiguous to it. The safety of infantry against cavalry, will depend upon the preservation of perfect coolness, good order, and connection in the ranks; the avoidance of any precipitate movements which might bring about a surprise; and

the husbanding of its ammunition, and reservation of its fire until the enemy is within a deadly range. Well-disciplined infantry, whilst in position, and when not exposed to a fire of artillery, may securely trust to its own resources to repulse the best cavalry, so long as it adopts the proper precautions. If annoyed, as sometimes may happen, by the fire of a few horsemen, advanced to draw the fire of the squares, it will be better to throw out some skirmishers, ten or twelve paces from the squares, to keep off such attacks, than to open a fire from the squares.

807. *Defence, etc., against artillery.* — Infantry may take advantage, either of covers presented by the features of the ground, or of occasionally shifting its position, to avoid the fire of artillery. Very slight undulations, obstructions, like the low banks along the borders of ditches, will serve to cover troops, by causing the shot to rise above them. If no covers are at hand, the chances of casualties, when within point-blank range, may be diminished by moving forward, or backward, some fifty paces; if the fire be a ricochet, the position should be shifted some fifty paces to the right or left. The enemy's batteries may be annoyed, and sometimes be forced to change their position, by sending out good marksmen, who advance singly to within some 250 paces of them; when, lying down, they can pick off the officers, men and horses.

808. *Attack of artillery.* — Whenever it is found necessary to carry a battery by the bayonet, the troops for this duty are divided into two detachments; one of which is charged with capturing the guns, and the other with attacking the supports of the battery.

The dispositions made by the detachment which moves against the guns will be the usual one of skirmishers; the line surrounding the battery, and opening their fire upon it when within about 250 paces, taking advantage for this purpose of any covers, to screen the men. The supports of the line of skirmishers should be kept well to the rear, to be ready against a flank movement on the line. If this manœuvre succeeds in drawing the fire of the guns, and any confusion is observed among the men, then a rush must be made immediately upon them with the bayonet.

The detachment against the supports of the battery will make its

dispositions according to the kind of troops which compose the supports. If of infantry, the detachment to seize the guns, divided into two portions, will advance either in line or column, as may be best, on the flanks of the line of skirmishers; gradually getting in advance of it, and closing on the flanks of the battery, so as to attack the supports in flank; or else they may keep to the rear of the line of skirmishers, in order to tempt the supports to move forward, and thus mask the fire of their guns. If the supports are of cavalry, the detachment, divided into two columns, will follow the line of skirmishers, in rear of the flanks, to cover it against a charge of cavalry.

CAVALRY.

809. *Position.* — This arm is usually placed in the rear of the infantry, on ground favorable to its manœuvres, and where it will be masked from fire until the moment arrives to bring it into action; here, if acting on the defensive, the cavalry watches its opportunity to support the other troops, driving back the enemy, by prompt and vigorous charges, when these are hard pressed; or, if on the offensive, biding its time, to rush upon the assailant, and complete his destruction; when his ranks commence to waver, or show signs of disorganization from the assaults of the other arms.

Formation.—The habitual formation of cavalry for the attack is a line of two ranks, with a reserve or support in rear. The supports are indispensably requisite to guard against those chances of danger to which cavalry is particularly exposed, if attacked in turn, when in a state of partial disorganization, after a successful charge; or when threatened by an offensive movement against its flanks. The supports offer a safeguard against either of these dangers; for, if the front line is brought up by the enemy, after a successful charge, it can retire and rally in rear of the supports; and if the enemy makes a movement against the flanks, the supports, placed behind them and in column, can form and anticipate the enemy's charge. For the foregoing reasons, cavalry should not give way to a headlong pursuit after a successful charge, unless its supports are at hand; and, in cases where a charge is made without supports, a

portion only should engage in pursuit, the rest being rallied to form a support.

Cavalry is seldom called on to use fire-arms. When on outpost service, or acting on the defensive on ground unfavorable to charging, a portion of the force may be dispersed as flankers, to hold the enemy in check by their fire. In this case their movements are regulated in the same way as other skirmishers.

810. *Defences.* — The defensive qualities of cavalry lie in the offensive. A body of cavalry which waits to receive a charge of cavalry, or is exposed to a fire of infantry, or artillery, must either retire, or be destroyed. This essential quality of cavalry renders its service invaluable in retreats when the enemy pursues with vigor. In such cases it should be held in constant readiness to take advantage of every spot favorable to its action; and by short and energetic charges, force the enemy to move with circumspection.

811. *Attack against infantry.* — So long as infantry maintains its position firmly, particularly if the ground is at all unfavorable to the movements of cavalry, the chances are against a successful attack by the latter. Cavalry should therefore wait patiently until a way is prepared for its action, by the fire of artillery on the enemy's infantry; or until the infantry has become crippled and exhausted by being kept in action for some time; or else, watching its opportunity, make a charge whilst the infantry is in motion, so as to surprise it before it can form to receive the attack.

Cavalry should direct its charge on that point of the enemy's infantry where it will itself be exposed to the least column of fire. If the infantry is in line, the charge should be made on one of its flanks; if in square, on one of the angles of the square; and when several squares are formed, so as to afford mutual support by their fire, selecting the squares on the flanks as most vulnerable, from their position.

The formation usually recommended for charging against squares, is that of three squadrons in line at double distance; the leading squadron being followed by the others, either directly in its rear; or else the squadrons may be formed in echelon, successively overlapping each other, by about the front of a platoon. The angle of

the square is charged by each squadron in succession, if the charge of the one preceding it fails; the repulsed squadrons each wheeling to the right or left, on retiring; to leave the way clear for its successor. A fourth squadron in column follows those in line, to surround the square, and make prisoners if it should be broken by the charge.

To draw the fire of the infantry before charging, a few skilful flankers may be thrown forward, to open a fire on the square. Stratagem may also be tried, by moving along the front of the infantry, at some 400 paces, and then charging, if it is attempted to throw away its fire at this distance. In an attack where several squares are in line, if one fires to second another it should instantly be changed.

812. *Attack against artillery.* — In attacks against artillery, the detachment of cavalry should be divided into three bodies; one-fourth of the detachment being charged with carrying the guns; one-half to attack the supports of the battery; and the remaining fourth acting as a reserve, to cover the parties in advance, from an offensive movement against their flanks or rear.

The party to secure the guns make their attack in dispersed order, and endeavor to gain the flanks of the battery. When the battery has a fair sweep over the ground along which they must advance, they should by manœuvering and false attacks, try to confuse the artillerists, and draw their fire before making their charge.

The attack against the support of the battery will be directed in the usual manner, the party manœuvring to gain their flanks.

ARTILLERY.

813. *Position.*—The manner of placing artillery and its employment must be regulated by its relative importance under given circumstances, with respect to the action of other arms. In the defensive, the principal part is usually assigned to the artillery; and the positions taken up by the other arms will, therefore, be subordinate to those of this arm. In offensive movements the reverse generally obtains.

814. *Defence.*—In defensive positions the security of the batteries is of the last importance. Unless the batteries are on points which

are inaccessible to the enemy's cavalry and infantry, they must be placed under the protection of the other troops, and be outflanked by them.

As in the defensive we should be prepared to receive the enemy on every point, the batteries must be distributed along the entire front of the position occupied, and on those points from which they can obtain a good sweep over the avenues of approach to it; the guns being masked, when the ground favors, from the enemy's view, until the proper moment arrives for opening their fire.

The distance between the batteries should not be much over 600 paces, so that by their fire they may cover well the ground intervening between them, and afford mutual support; the light guns being placed on the more salient points of the front, from their shorter range and greater facility of manœuvring; the heavier guns on the more retired points. Guns of various calibre should not be placed in the same battery. A sufficient interval should also be left between batteries of different calibre, to prevent the enemy from judging, by the variations in the effect of the shot, of the weight of metal of the batteries.

Those positions for batteries should be avoided from which the shot must pass over other troops to attain the enemy. And those should be sought for from which a fire can be maintained until the enemy has approached even within good musket-range of them.

When the wings of a position are weak, batteries of the heaviest calibre should be placed to secure them.

A sufficient number of pieces—selecting for the object in view horse artillery in preference to any other—should be held in reserve for a moment of need, to be thrown upon a point where the enemy's progress threatens danger, or to be used in covering the retreat.

The collection of a large number of pieces in a single battery is a dangerous arrangement, particularly at the outset of an engagement. The exposure of so many guns together might present a strong inducement to the enemy to make an effort to carry the battery; a feat the more likely to succeed, as it is difficult either to withdraw the guns or change their position promptly, after their fire is opened; and one which, if successful, might entail a fatal disaster on the assailed, from the loss of so many pieces at once.

In all defensive dispositions the ammunition should be most carefully husbanded. A fire should never be opened until the enemy is within good range, and, when once opened, be continued with perseverance and coolness up to the last moment in which it can be made effective.

815. *Attack.*—In the outset of offensive movements, good positions should be selected for the heaviest pieces, from which they can maintain a strong fire on the enemy until the lighter pieces and the columns of attack are brought into action. These positions should be taken on the flanks of the ground occupied by the assailant, or on the centre, if more favorable to the end to be attained. In all cases, wide intervals should be left between the heavy batteries and the other troops, in order that the latter may not suffer from the return fire which the assailed will probably open on the batteries. For the same reason, care should be taken not to place other troops behind the point occupied by a battery, where they would be exposed to the return fire of the assailed; when this cannot be avoided, the troops should be so placed as to be covered by any undulation of the ground, or else be deployed in time to lessen the effects of the shot.

The artillery which moves with the column of attack, should be divided into several strong batteries, as the object in this case is to produce a decisive impression upon a few points of the enemy's line, by bringing an overwhelming fire to bear upon these points. These batteries should keep near enough to the other troops to be in safety from any attempts of the assailed to capture them. Their usual positions will be on the flanks, and near the heads of the columns of attack; the intervals between the batteries being sufficient for the fire manœuvres of the other troops, in large bodies. The manœuvres of these batteries should be made with promptitude, so that no time may be lost for the action of their fire. They should get rapidly over unfavorable ground to good positions for firing, and maintain these as long as possible; detaching, in such cases, a few pieces to accompany the column of attack. In all the movements of the batteries, great care should be taken not to place them so that they shall in the least impede the operations of the other troops.

ARTICLE XVI.

COURTS MARTIAL.

816. COURTS MARTIAL are military courts instituted for the investigation and punishment of all offences committed by *officers, soldiers, sutlers, retainers to the camp, and persons serving with the army*, in violation of military law, and the custom of war. Their powers and duties are laid down in general terms in the Articles of War, from Article 64 to 91 inclusive.

817. Commissioned officers clothed with military rank, and entitled to command, are the only persons in the United States service who are eligible as members of courts martial; this excludes all paymasters, surgeons, and assistant-surgeons, whose rank is only assimilated.

818. Courts martial are of three kinds, *General, Regimental*, and *Garrison*.

A general court martial is competent to take jurisdiction over any offence of a military nature, that can be committed by military persons; and its powers to award punishments are co-extensive with this right. Commissioned officers are not amenable to any other than a general court martial, and it is provided by Article 75 of the Articles of War, that they shall not be tried by officers of an inferior rank, if it can be avoided.

819. A general court martial can only be appointed or assembled by the President of the United States, by the Governor of a State as commander-in-chief of the forces of the State, by a general commanding an army, or by a general or colonel commanding a separate military department. The warrant for assembling the court, or the appointment of the members thereof, is in the form of an order, and issues directly from the officer to whom the law has delegated such power.

820. It is provided by Article 64 of the Articles of War, that general courts martial may consist of any number of members from five to thirteen inclusively; but they shall not consist of less than thirteen when that number can be convened without manifest injury to the service. It is to be observed, however, that the officer empowered to appoint a court, is invested with discretionary authority as to the number of officers which shall compose it, and their rank relatively to that of the accused.

821. The proceedings and decisions of general courts martial are subject to review or revision by the officer ordering the same, or the officer commanding the troops for the time being. In the United States service no sentence of a general court martial in time of peace, extending to the loss of life, or the dismission of a commissioned officer; or which shall, either in time of peace or war, respect a general officer, cannot be carried into execution, until after the whole proceedings shall have been transmitted to the Secretary of War, to be laid before the President of the United States for his confirmation or disapproval, and orders in the case. All other sentences may be confirmed and executed by the officer ordering the court, or the commanding officer for the time being, as the case may be. Every officer authorized to order a general court martial shall have power to pardon or mitigate any punishment ordered by such court, except the sentence of death, or of cashiering an officer.

822. Regimental and garrison courts martial take cognizance of and punish officers of minor degree. The regimental court martial is ordered by the colonel or other commander of the regiment, for the trial of offences in the regiment; it consists of three commissioned officers.

Garrison courts martial are in like manner composed of three commissioned officers, and appointed by the commanders of garrisons, forts, barracks, or other places, where the troops consist of mixed corps.

The proceedings of regimental and garrison courts martial are submitted to the officers ordering them, or to their successors in command, for revision, and decision on the sentences pronounced. The jurisdiction of these courts is very limited, and can in no case extend to the trial of capital cases, or commissioned officers.

THE TRIAL.

823. A court martial having been deemed necessary to investigate the conduct of an officer or soldier, against whom a charge has been preferred, the order appointing the members and judge advocate to compose the same, as well as the time and place of meeting, is duly promulgated.

When the hour has arrived for assembling, the members of the court martial take their places at the table according to rank, on the right and left of the president, the latter at the head of the table. The judge advocate is seated opposite to the president. The prisoner and his counsel (if he has any) have a place assigned, with the necessary accommodation for writing, on the right hand of the judge advocate. The witness stands near the judge advocate on his left hand. In case a third party, as prosecutor, should be permitted to appear, he will be placed to the left of the judge advocate. The court being seated and called to order, no member can leave his seat without the permission of the president.

It is usual for the judge advocate to prepare a copy of the charges for the use of the court, which is placed upon the table previous to the arraignment.

The court having been called to order, and any preliminary matter which may have required their attention being disposed of, it is proclaimed open. The parties are then called, and appear in court.

The prisoner, unless there be danger of escape or rescue, must appear without fetters, and free from shackles of any kind; when the court adjourns, the prisoner, if a soldier, is remanded to the hands of the guard.

The judge advocate now reads the order for the assembling of the court. It is proper also to read the charges to be investigated, so that the court may have before them the *matter* which they are about to swear that they will "truly try and determine."

824. The order for convening the court having been read, the judge advocate asks the prisoner if he has any objection to any member present named in the order, or any cause of challenge to present.

Peremptory challenge or challenges are not permitted, but the prisoner must assign his reasons in writing, or if brief, the judge advocate will record them as stated.

In case a member should be challenged (and only one can be challenged at a time), the reasons therefor, and when susceptible of such, the reply or explanation offered, are committed to writing as a part of the minutes of the court, and make a portion of the proceedings; and the court is cleared in order to deliberate and decide on the objection assigned. The member objected to always withdraws during the discussion which follows, and of course does not vote on the question. Upon the re-opening of the court, the judge advocate (by direction of the court), makes known the decision, and the challenged member resumes his seat, or withdraws altogether, as the case may be, and a member in waiting, or supernumerary, if any be detailed, supplies his place.

The judge advocate cannot be challenged on any pretence whatever.

825. The judge advocate then proceeds to administer the prescribed oath; the members of the court, and the judge advocate stand; the person or persons to be sworn lift the right hand, ungloved, when the judge advocate recites in an audible voice, "You, Colonel A. B., Major B. C., Major D. F., and Captain G. H. (thus naming with his rank, each member of the court), do swear that you will well and truly try and determine," etc. etc. "So help you God." (See 69th Article of War.)

The presiding officer then administers the oath to the judge advocate, who observes the same form; during which time, all the members of the court remain standing, and observe the most decorous silence and attention.

The same oath prescribed to be taken by the members of a general court martial, is directed to be taken by the members of a regimental and garrison court martial. No particular oath of secrecy is required of the recorder, as he is a member of the court.

Whenever several persons are to be tried by the same court martial, upon different charges, the court must be re-sworn at the commencement of each trial, and the record of each case made up separately, and signed by the president and judge advocate.

826. The court having been sworn in the presence of the prisoner, the judge advocate reads the charge to the prisoner in open court, whom the judge advocate arraigns, by addressing by his proper title or rank, and name. "You have heard the charges preferred against you; how say you — guilty, or not guilty?"

The prisoner may plead guilty or not guilty; but it must be made simply and unqualified, as nothing exculpatory can at this time be received. No *special* justification can be offered as a plea, as such would be an anticipation of the defence. He may stand mute, that is, refuse to answer; or answer foreign to the purpose; or may plead in bar of trial.

The ordinary plea is "not guilty," upon which the trial proceeds. The plea being recorded, the judge advocate calls the first witness, and gives notice, that should there be any persons present in court who have been summoned as witnesses, they will retire until called for, as it is a rule, that the witnesses of neither party can be present during the examination of other witnesses.

827. The witness is sworn by the judge advocate, and the same form of administering the oath is observed as was indicated for swearing in of the members. The words are: "You do swear (or affirm), that the evidence you shall give in the cause now in hearing, shall be the truth, the whole truth, and nothing but the truth, so help you God."

The name, rank, regiment, or corps, or distinctive condition of the witness is recorded by the judge advocate at length, so that the person may by the description be easily identified.

The examination of the witnesses is always in the presence of every member of the court; and the "countenance, looks, and gestures of a witness," are considered of importance as adding to, or taking from the weight of his testimony. The testimony is sometimes given in the form of a narrative, but more frequently by interrogations. Narration in many cases, is the most natural and easy method to observe, but interrogation is the more direct and searching means of soliciting evidence, and also the more certain. All evidence received is recorded in the order in which it is given, and as nearly as may be in the very words of the witness. In case a

witness should be too ill to attend the court, the latter may adjourn to the room or bedside of the former to receive his evidence. Questions are reduced to writing by the party originating them, and read aloud by the judge advocate, who writes them on the proceedings. Should an objection be made to a question on examination, the court is cleared, and a majority of voices determines whether it shall be put or not.

A question having been rejected, is not, therefore, expunged from the record, of which it makes a part, unless by consent of the parties before the court, but appears on the record, with the decision of the court. A party before the court cannot object to a question put by the court, though he may to a question put by a member of it, before the collective opinion of the court has been expressed in relation to it. All questions originating with members, and which have been received, are recorded as "*by the court,*" but when made the subject of discussion, and rejection, they are entered upon the record as "*by a member.*"

When a witness is sworn, the party who calls him commences the examination, which is styled the examination in chief; that being finished, the opposite party asks what questions he may deem necessary, and this latter interrogation is called the cross-examination. A re-examination of the witness, by the first party, follows the cross-examination, upon such points as the latter may have touched on, and then the court put such questions as they may deem requisite, to elicit the whole truth.

The examination of the witness having been completed, his evidence, if deemed necessary by the court, or if desired by him, is read over previous to his leaving, to give him the opportunity of correcting any errors therein. Accordingly, any remark or explanation, with such a view, is entered on the proceedings; but no erasure or obliteration of what has been previously stated can be made.

Should either party perceive, after having concluded his case, that a material question has been omitted, he submits it to the court, who will always allow it to be put.

The witnesses called by the prosecutor having been examined,

and all the evidence to substantiate the charges submitted to the court, the prisoner enters upon his defence. Should it be necessary for preparation, the court, at the request of the prisoner, would grant time to enable him to proceed with more certainty or precision.

Witnesses for the defence are examined in the same order, as those presented on the part of the prosecution. The prosecutor cross-examines, and the prisoner re-examines to the same extent allowed to the prosecutor.

828. The examination of witnesses having been closed, the prisoner takes his time to address the court, when by argument and statement of facts as shown in the evidence, he presents to the court every consideration which may tend to weaken the force of the prosecution. The greatest liberty, consistent with strict propriety, especially in regard to third persons not before the court, is at all times allowed a prisoner; and he therefore may impeach, by evidence, the character of witnesses brought against him, and remark on their testimony, and the motives by which they and the prosecutor appear to have been actuated. Coarse and insulting language cannot, however, be tolerated.

Should either party, in the course of their examination of the witnesses, or by bringing forward new ones for that purpose, introduce new matter, the opposite one has the right of calling other witnesses to rebut such new matter.

The address (or defence) of the prisoner, prepared subsequent to the reception of all the testimony, is read by the prisoner, or if any cause should prevent his so doing, it may be, at the request of the prisoner, read by his counsel, the judge advocate, or a military friend.

The judge advocate, or the prosecutor, can always claim the right of replying to the defence of the prisoner, and the court will generally grant a reasonable time for the preparation of it. When the reply has been read, the trial is closed. Should the prisoner have examined witnesses as to matter not touched upon in the course of the prosecution; or should he have reflected upon the credibility of the prosecutor's evidence, the prosecutor is allowed to examine

witnesses to the new matter, and for the re-establishment of the character of his witnesses.

FINDING.

829. The charges having been investigated by the production and examination of all the evidence which the parties have deemed necessary, it is now the business of the court to decide upon the question of guilt.

It is necessary, however, before proceeding to this stage of the trial, that each and every allegation made against the prisoner should be fully inquired into; and this, too, entirely without reference to the proof of any one item, which might even call for the uttermost sentence which a court martial can award, either against the life, or the commission of the offender; and so, too, must a distinct judgment be pronounced upon every specification adduced in support of the charges.

Every member should fully satisfy himself of the extent and value of the testimony on record; and, for this purpose, a fair copy of the proceedings is laid upon the table, or read over by the judge advocate, for the convenience of reference, and to make certain, while the subject or particulars of the evidence is still fresh in the minds of the members, that such copy is a faithful transcript of the same.

This is of importance when the case is intricate, or the testimony voluminous; and it is also a very useful practice for the judge advocate, in such cases, to prepare an index, or short notes, of the evidence, in order that reference to the record may be made more easy.

It is competent for the court at this stage of the proceedings, to call back a witness for the purpose of asking any particular question thought necessary; but the parties must be present during such further examination. Indeed, before the finding, the court can recall a witness at any time.

830. The court having had sufficient time for a re-examination of the evidence, if necessary, and for deliberation and free discussion, the president, having ascertained that every member is ready

to give his opinion, signifies to the judge advocate to proceed. The latter then reads, in consecutive order, the specifications to each charge, and addresses each member, beginning with the youngest: "From the evidence in the matter now before you, how say you of the specification, or charge — is the prisoner guilty or not guilty?" The vote upon each specification of the charge having been given and recorded, the opinion on the charge is then given — and so on in succession for all the specifications and charges, which have been the subject of investigation. In order to avoid the exposure of each individual opinion as his vote is given, the members write upon slips of paper the opinion, *guilty* or *not guilty*, and hand them to the judge advocate, who, after receiving every vote, arranges them, and announces the verdict. As the vote of each member is given, the judge advocate makes a minute of the same, which should be carefully retained by him, to meet the possible contingency of proceedings in the common law courts, touching the legality of the acts of the court martial.

The majority of the voices determines the conviction or acquittal of the prisoner, except in such cases as when (upon conviction) the law absolutely, and without any discretion in the court, condemns him to suffer death. In all such cases, a two-third vote is necessary to conviction, and the record must explicitly state that two-thirds of the court concurred in the finding.

Should it happen, by the organization of the court, or from the accident of sickness or death of any of the members, that there is an equality of votes upon the finding, the doubt must be resolved in favor of the prisoner, and he must have the benefit of acquittal.

831. The degree of guilt of which the prisoner is found, or the extent to which the charge is proved, ought to be well defined and clearly expressed; and so, likewise, the mode of declaring the prisoner acquitted, is a matter of some importance. Acquittals which are characterized by the terms, *honorably; most honorably; fully;* or *most fully;* should be employed when the nature of the charge makes them necessary; but in general, when no circumstances exist which call for emphatic opinions, a simple verdict of

acquittal is the better formula. To declare that the charges *are not proved* is improper.

In the deliberation of the court upon the finding to be declared, it is proper to observe the distinctions which may be made between the crime as alleged in the charge, and the degree of offence proved. A court martial, therefore, may, in some instances, find a prisoner guilty of the offence in a less degree than that stated. But a court martial, although empowered to find him guilty in a less degree, cannot find a higher degree of guilt than that alleged in the charge.

The finding declared by a majority, or specific proportion of all the court, when the law, in particular offences, requires such, is the decision of the court, and the minority are bound by it.

OF THE SENTENCE.

832. The court, having determined the finding of innocence or guilt of the prisoner, proceed to the conclusion of their labors by pronouncing an acquittal, or affixing the punishment, according to the nature and degree of the offence.

Whatever may have been the opinion of a member as to the finding of the court, he must, upon a conviction being declared by the legal number of votes, give his opinion as to the nature and degree of punishment, and apportion the same according to the degree of crime of which the majority have found the prisoner guilty. The minority then acts independently of their individual opinions, and award punishment according, and adequate, to the offence of the accused. If the prisoner has been convicted of a particular offence, for which punishment is prescribed by law, every member must vote the punishment which the law has prescribed. In cases not provided for by special penalty, it is of importance to the court to consider what kinds and degrees of punishment are legally applicable to the case, and none should be inflicted except such as are in accordance with the custom of war in like cases, or the common law of the land.

833. In passing sentence, courts martial should be careful to employ clear and unambiguous language, so that the kind and degree

of punishment shall be set forth definitely and precisely; and the mode of inflicting capital punishment should be designated. The military laws do not say how a criminal, offending against such laws, shall be put to death, but leave it to the custom of war. Shooting or hanging is the method determined by such custom. A spy is generally hanged; and mutiny, accompanied with loss of life, is punished by the same means. Desertion, disobedience of orders, or other military crimes, usually by shooting.

CONFIRMATION OF SENTENCE—REVISION.

834. When the proceedings of a court martial are submitted to the officer ordering the same, for his confirmation or disapproval and orders, it becomes his duty to peruse, in the most careful manner, the record of the court, and to ascertain any error which may have been admitted. Or should the record be found perfect in all its parts, he is to signify his decision thereon, and give his orders accordingly. But if any mistake or error in the conduct of the trial be presented to view, the proceedings of the court may be sent back to them for revision. The officer who directs the court to reconvene, to reconsider its original opinion, points out, at the same time, the particular cause which makes a reconsideration necessary; and the court is therefore bound to re-examine, with deliberation and care, the reasons upon which the former opinions rested. The principal cause for requiring courts martial to revise their judgments is when an insufficient or undue weight has been given to the testimony, and is supposed to arise from inadvertence, misconception of the law, or the custom of war; or where an exorbitant, inadequate, or illegal punishment has been awarded.

Every officer having authority to review the proceedings of courts martial, has power to suspend the execution of the sentence, to pardon or mitigate any punishment ordered by such court. He cannot, however, alter or commute the punishment, even with the consent of the party sentenced.

OF THE JUDGE ADVOCATE.

835. By the laws of the United States it is made the duty of the judge advocate to "prosecute in the name of the United States, but shall so far consider himself as counsel for the prisoner, after the said prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might tend to criminate himself; and administer to each member of the court, before they proceed upon any trial, the following oath, which shall also be taken by all members of the regimental and garrison courts martial."

The charges upon which a prisoner is to be tried having been placed in the hands of the judge advocate, he is to ascertain what witnesses or evidence will be necessary, both for the prosecution and defence, and thereupon summon every person whose testimony may be required. This duty should be performed at the earliest period possible, to avoid any delay in the proceedings. He is to furnish the accused party with a copy of the charges as soon as possible, or ascertain if such has been transmitted to him from another source; and should any alteration be made in the charges, the prisoner should be immediately apprized of it.

Between the adjournment of one day, and the meeting on the next, the judge advocate prepares a fair copy of the procedings, which, upon the reassembling of the court, is read over.

The business of the court having been concluded, the record of the proceedings is signed by the president of the court, and countersigned by the judge advocate.

836. The duties of a judge advocate before a court of inquiry, are in many respects the same as officiating before a general court martial, though of limited extent.

A court of inquiry may be composed of from one to three officers, with a judge advocate, or suitable person as recorder, to reduce the proceedings and evidence to writing; all of whom are to be sworn according to a prescribed oath. (See 95th Article of War.)

The judge advocate prepares the case for investigation. He summons the necessary witnesses, and gives notice to the parties inter-

ested, as to the place and time of meeting. He swears the witnesses in the same way as they are sworn before a court martial, and he records the testimony and keeps the proceedings from day to day.

The business of the court having been completed, the record will be authenticated by the signatures of the president and the judge advocate, and by the latter transmitted to the authority by which the court was convened.

837. *Form of order for convening a general court martial.*

Adjutant-General's Office,
WASHINGTON, *Jan.* —, 18—.

General Orders, No. —.

A general court martial will assemble at ———, at 10 o'clock, A. M., the 15th instant, or as soon thereafter as practicable, for the trial of ———, and such prisoners as may be brought before it.

Detail for the court.

1. Colonel A. B.	1st	Regiment of	Infantry.
2. Colonel C. D.	2d	"	" Cavalry.
3. Major E. F.	3d	"	" Artillery.
4. Major G. H.	5th	"	" Infantry.
5. Captain L. M.	1st	"	" Dragoons.
6. Captain N. O.	4th	"	" Infantry.
7. Etc., etc., etc.			

Captain P. S., of the 2d regiment of artillery, is appointed the judge advocate of the court.

Should any of the officers named in the detail be prevented from attending at the time and place specified, the court will nevertheless proceed to, and continue the business before it, provided the number of members present be not less than the *minimum* prescribed by law; — the above being the greatest number [*when the court is composed of less than thirteen members*] that can be convened without manifest injury to the service.

By command of Major-General S.,
S. C., *Adjutant-General.*

838. *Form of the proceedings of a general court martial.*

Proceedings of a General Court martial, convened at ———, by virtue of the following order, viz.:

(*Here insert the order.*)

— o'clock, A. M., *Jan. 15th*, 18—.

The court met pursuant to the above order. Present:

Colonel A. B.....	1st	Regiment of	Infantry.
Colonel C. D.....	2d	"	" Cavalry.
Major E. F.....	3d	"	" Artillery.
Major G. H.....	5th	"	" Infantry.
Captain L. M.....	1st	"	" Dragoons.
Etc., etc.....	———		
Etc., etc.....	———		

Captain P. S., of the 2d regiment of artillery, judge advocate.

Captain T. W., 8th regiment of infantry, the accused, also present.

The judge advocate having read the order convening the court, asked Captain T. W. if he had any objection to any member named therein, to which he replied,—

(*If any challenge is made, it must be now, and to one member at a time.*)

The court was then duly sworn by the judge advocate, and the judge advocate was duly sworn by the presiding officer of the court, in the presence of the accused.

(*It is at this stage of the proceedings that the accused makes his request for the privilege of introducing his counsel, and will also, if he desires it, state his reasons for postponement of the trial. These matters being settled, the court proceeds.*)

The charges were read aloud by the judge advocate. Judge advocate (*addressing the accused*), "Captain T. W., you have heard the charge, or charges, preferred against you; how say you—guilty or not guilty?"

To which the accused, Captain T. W., pleaded as follows:—(*The judge advocate here gives notice, that should there be any persons present in court, who have been summoned as witnesses, they must retire and wait until called for.*)

Captain D. N., 2d regiment of artillery, a witness on the part of the prosecution, was duly sworn.

Question by the judge advocate. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.
Cross-examined by the accused. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.
Question by the court. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.
Re-examined by the judge advocate. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.

(*The examination of the witness being completed, his testimony is read over to him, and corrected if necessary—when the next witness is called. The judge advocate having presented all the evidence for the prosecution, states such fact, and announces that the prosecution is closed—when the accused enters upon the defence.*)

Lieutenant A. B., 3d Regiment of Infantry, a witness for the defence, was duly sworn.

Question by the accused. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.

Cross-examined.

Question by judge advocate. ——————————?
Answer. ——————————.
Question. ——————————?
Answer. ——————————.
Question by the court. ——————————?
Answer. ——————————.

(*The evidence on both sides having been heard, the accused asks for time to prepare his defence.*)

The court adjourned to meet again at 10 o'clock, A. M., on the —— inst.

10 o'clock, A. M., —— 18—.

The court met pursuant to adjournment. Present, Colonel A. B.; Colonel C. D.; Major E. F.; Major G. H.; Captain J. M., etc., etc Captain P. G., judge advocate, and Captain T. W., the accused.

The proceedings of yesterday were read over, when the accused, Captain T. W., presented and read (*or which was read by his counsel*) the written defence (A.) appended to these proceedings.

(*Should the judge advocate intend to reply, he would notify the court, and ask for the requisite time for preparation.*)

The statements of the parties being thus in possession of the court, the court was cleared for deliberation; and having maturely considered the evidence adduced, find Captain T. W., of the 8th Regiment of Infantry, as follows:

Of the first specification of 1st charge, ————, Guilty.
Of the second specification of 1st charge, ————, Not guilty.
Of the third specification of 1st charge, ————, Guilty.
Of the FIRST CHARGE, ————, Guilty.
Of the first specification of 2d charge, ————, Not guilty.
Of the second specification of 2d charge, ————, Not guilty.
Of the SECOND CHARGE, ————, Not guilty.

And the court do therefore sentence the said Captain T. W. of the 8th Regiment of Infantry, —— to ——.

(Signed) A. B.,
Colonel 1st Regiment of Infantry, and President of the C. M.
(Signed) P. S.,
Judge advocate.

There being no farther business before them, the court adjourned *sine die*.

(Signed) A. B.,
Colonel 1st Regiment of Infantry, and President of the C. M
(Signed) P. S.,
Judge advocate.

ARTICLE XVII.

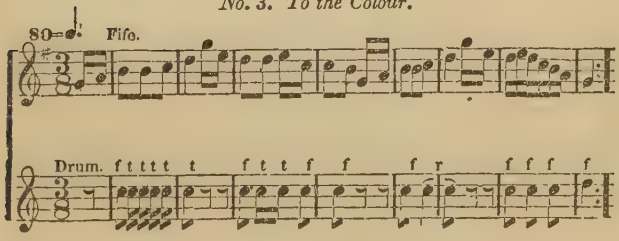
MUSIC.

BEATS OF THE DRUM.

No 1. *The General.*

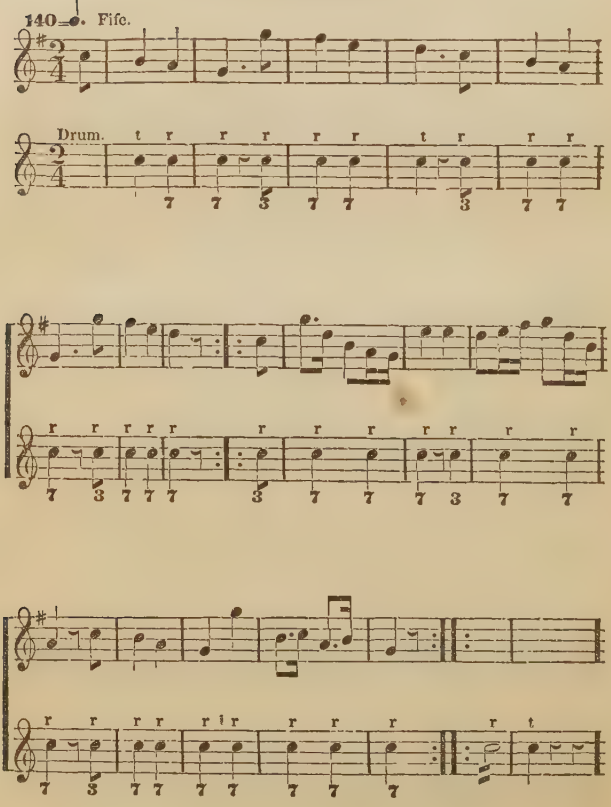
No. 2. *The Assembly.*

No. 3. *To the Colour.*

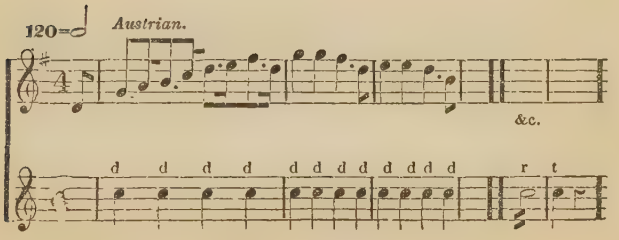


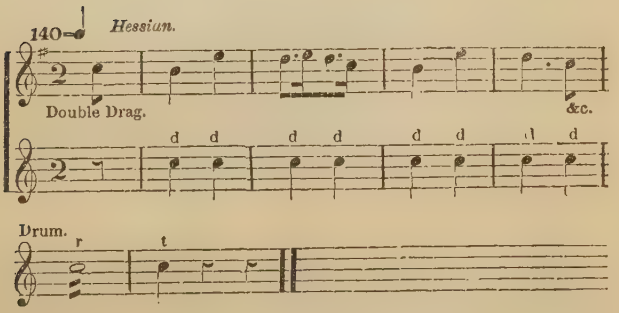
No. 4. The Long Roll.

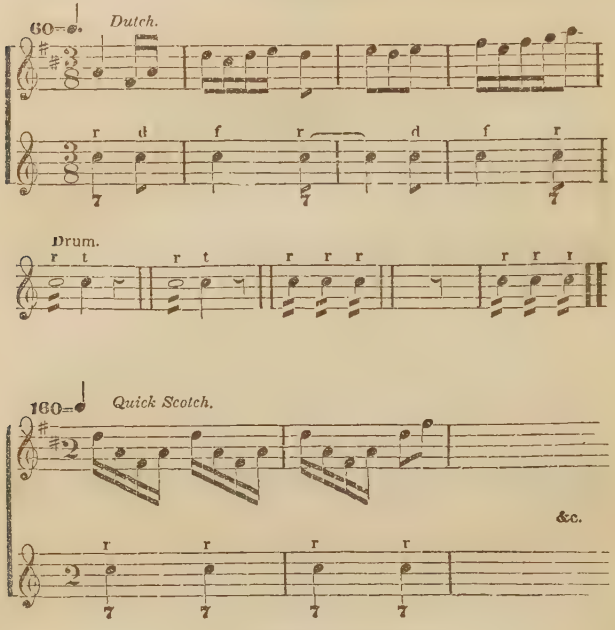
No. 5. The Reveille.



60=♩ Slow Scotch.
&c.
r r r r t

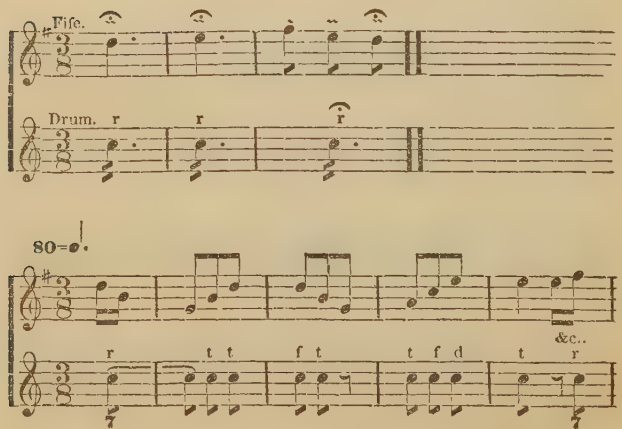

120=♩ Austrian.
&c.
d d d d d d d d d d d d r t


140=♩ Hessian.
Double Drag.
&c.
d d d d d d d d
Drum.
r t



D. C. The first part of the Reveille.

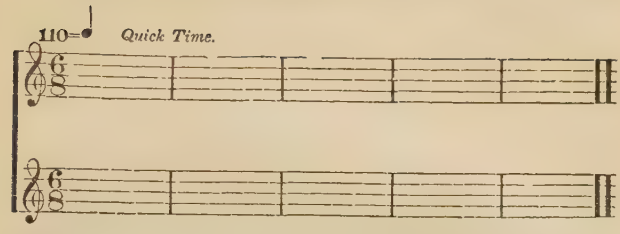
No. 6. The Troop.



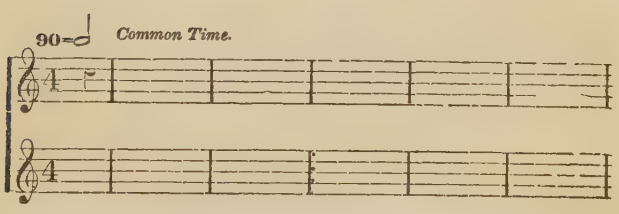
No. 7. The Retreat.

61 2 v

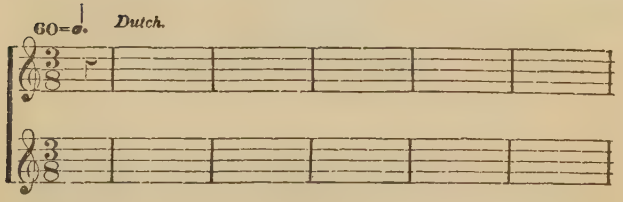
No. 8. *The Tattoo.*

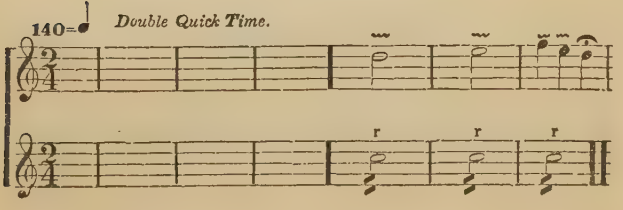


After the quick time begin the doubling.



After this repeat the doubling.

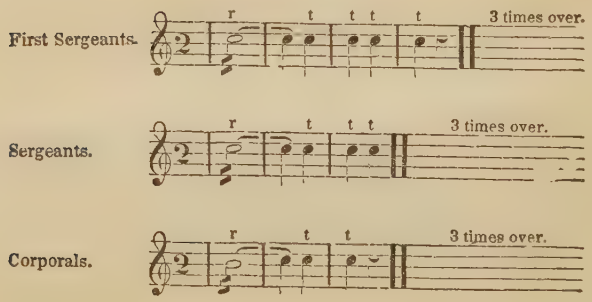




After the three rolls repeat doubling to the fine.

No. 9. *Drummer's Call.*

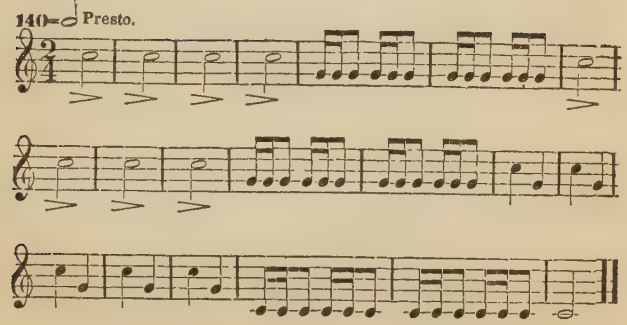
No. 10. *Come for Orders.*



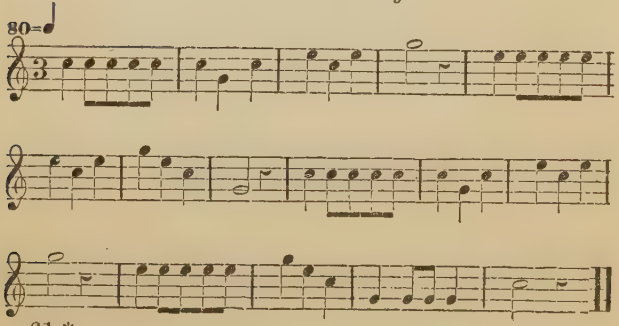
No. 11. *The Roll.*

SOUNDS FOR THE BUGLE.

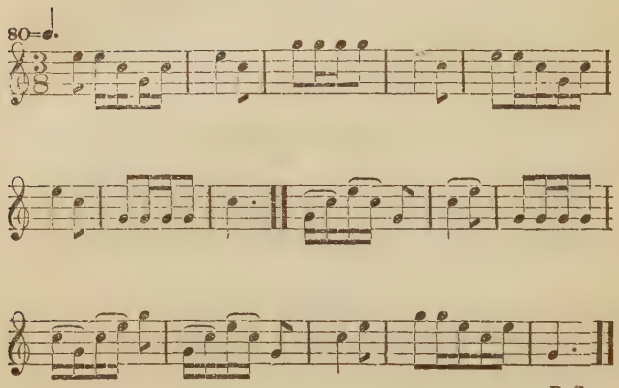
No. 1. *The General.*



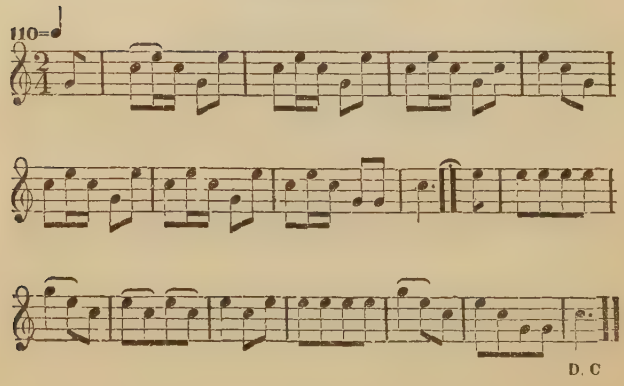
No. 2. *The Assembly.*



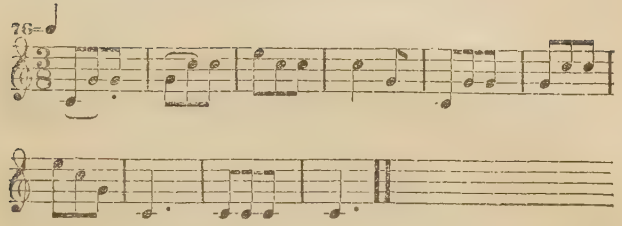
No. 3. *To the Colour.*



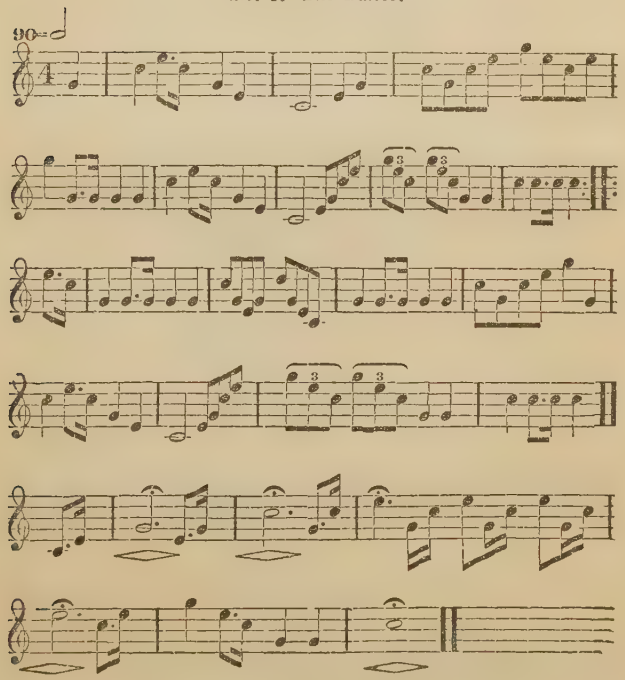
No. 4. *The Reveille.*



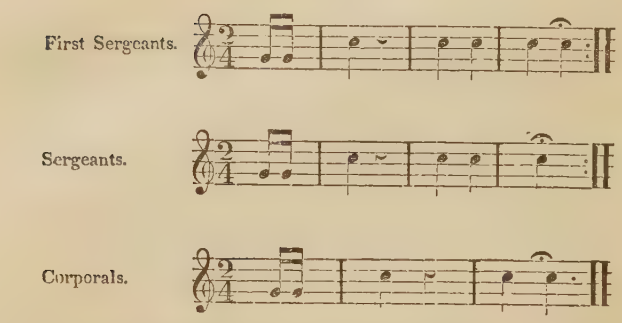
No. 5. The Retreat.



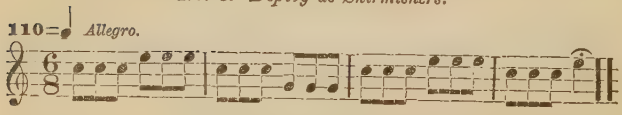
No. 6. The Tattoo.



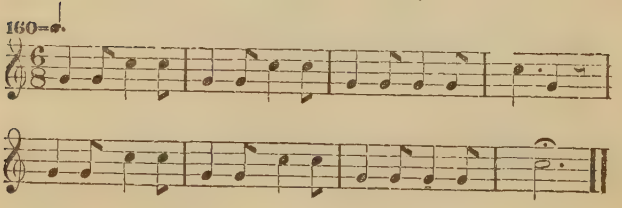
No. 7. *Come for Orders.*



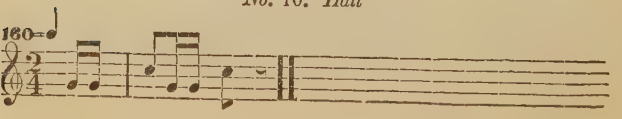
No. 8. *Deploy as Skirmishers.*



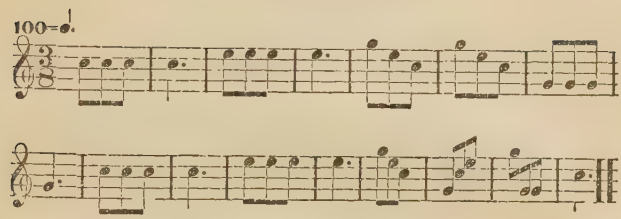
No. 9. *Forward March.*



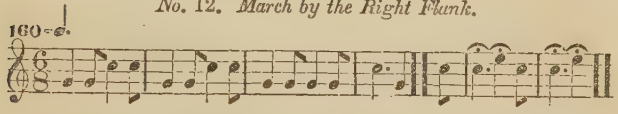
No. 10. *Halt*



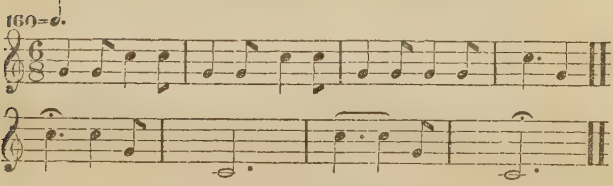
No. 11. *March in Retreat.*



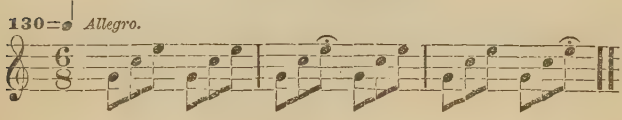
No. 12. *March by the Right Flank.*



No. 13. *March by the Left Flank.*

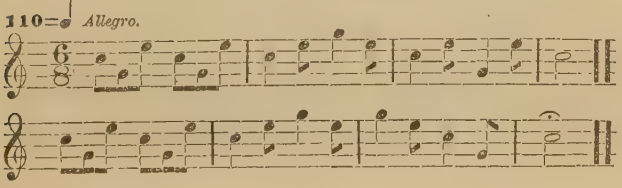


No. 14. *Rally by Fours.*

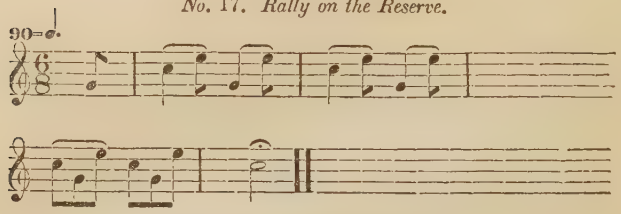


No. 15. *Rally by Sections.*

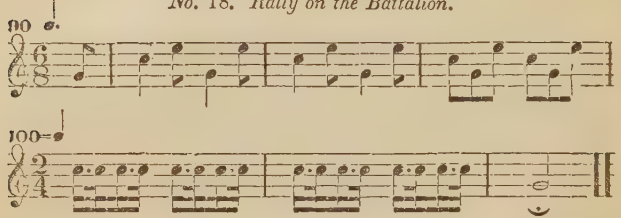
No. 16. *Rally by Platoons.*



No. 17. *Rally on the Reserve.*



No. 18. *Rally on the Battalion.*



No. 19. *Boots and Saddles.*

No. 20. *To Horse.*

No. 21. *The Charge.*

No. 22. *Stable Call.*

APPENDIX.

ARTICLES OF WAR.

AN ACT FOR ESTABLISHING RULES AND ARTICLES FOR THE GOVERNMENT OF THE ARMIES OF THE UNITED STATES.[1]

SECTION 1. *Be it enacted, by the Senate and House of Representatives of the United States of America, in Congress assembled*, That, from and after the passing of this act, the following shall be the rules and articles by which the armies of the United States shall be governed:

ARTICLE 1. Every officer now in the army of the United States shall, in six months from the passing of this act, and every officer who shall hereafter be appointed shall, before he enters on the duties of his office, subscribe these rules and regulations.

ART. 2. It is earnestly recommended to all officers and soldiers diligently to attend divine service; and all officers who shall behave indecently or irreverently at any place of divine worship shall, if commissioned officers, be brought before a general court martial, there to be publicly and severely reprimanded by the president; if non-commissioned officers or soldiers, every person so offending shall, for his first offence, forfeit one-sixth of a dollar, to be deducted out of his next pay; for the second offence, he shall not only forfeit a like sum, but be confined twenty-four hours; and for every like offence, shall suffer and pay in like manner; which money, so forfeited, shall be applied, by the captain or senior officer of the troop or company, to the use of the sick soldiers of the company or troop to which the offender belongs.

ART. 3. Any non-commissioned officer or soldier who shall use any profane oath or execration, shall incur the penalties expressed in the foregoing article; and a commissioned officer shall forfeit and pay, for each and every such offence, one dollar, to be applied as in the preceding article.

ART. 4. Every chaplain commissioned in the army or armies of the United States, who shall absent himself from the duties assigned him (excepting in cases of sickness or leave of absence), shall, on conviction thereof before a court martial, be fined not exceeding one month's pay, besides the loss of his pay during his absence; or be discharged, as the said court martial shall judge proper.

ART 5. Any officer or soldier who shall use contemptuous or disrespectful words against the President of the United States, against the Vice-President

[1] These rules and articles, with the exceptions indicated by the notes, annexed to articles 20, 65, and 87, remain unaltered, and in force at present.

thereof, against the Congress of the United States, or against the Chief Magistrate or Legislature of any of the United States, in which he may be quartered, if a commissioned officer, shall be cashiered, or otherwise punished, as a court martial shall direct; if a non-commissioned officer or soldier, he shall suffer such punishment as shall be inflicted on him by the sentence of a court martial.

ART. 6. Any officer or soldier who shall behave himself with contempt or disrespect towards his commanding officer, shall be punished, according to the nature of his offence, by the judgment of a court martial.

ART. 7. Any officer or soldier who shall begin, excite, cause, or join in, any mutiny or sedition, in any troop or company in the service of the United States, or in any party, post, detachment, or guard, shall suffer death, or such other punishment as by a court martial shall be inflicted.

ART. 8. Any officer, non-commissioned officer, or soldier, who, being present at any mutiny or sedition, does not use his utmost endeavor to suppress the same, or, coming to the knowledge of any intended mutiny, does not, without delay, give information thereof to his commanding officer, shall be punished by the sentence of a court martial with death, or otherwise, according to the nature of his offence.

ART. 9. Any officer or soldier who shall strike his superior officer, or draw or lift up any weapon, or offer any violence against him, being in the execution of his office, on any pretence whatsoever, or shall disobey any lawful command of his superior officer, shall suffer death, or such other punishment as shall, according to the nature of his offence, be inflicted upon him by the sentence of a court martial.

ART. 10. Every non-commissioned officer or soldier, who shall enlist himself in the service of the United States, shall, at the time of his so enlisting, or within six days afterward, have the Articles for the government of the armies of the United States read to him, and shall, by the officer who enlisted him, or by the commanding officer of the troop or company into which he was enlisted, be taken before the next justice of the peace, or chief magistrate of any city or town corporate, not being an officer of the army, or where recourse cannot be had to the civil magistrate, before the judge advocate, and in his presence shall take the following oath or affirmation: "I, A. B., do solemnly swear or affirm (as the case may be), that I will bear true allegiance to the United States of America, and that I will serve them honestly and faithfully against all their enemies or opposers whatsoever; and observe and obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the Rules and Articles for the government of the armies of the United States." Which justice, magistrate, or judge advocate, is to give to the officer a certificate, signifying that the man enlisted did take the said oath or affirmation.

ART. 11. After a non-commissioned officer or soldier shall have been duly enlisted and sworn, he shall not be dismissed the service without a discharge in writing; and no discharge granted to him shall be sufficient which is not signed by a field officer of the regiment to which he belongs, or commanding officer, where no field officer of the regiment is present; and no discharge shall be given to a non-commissioned officer or soldier before his term of service has expired, but by order of the President, the Secretary of War, the commanding officer of a department, or the sentence of a general court martial, nor shall a commissioned officer be discharged the service but by order of the President of the United States, or by sentence of a general court martial.

ART. 12. Every colonel, or other officer commanding a regiment, troop, or

company, and actually quartered with it, may give furloughs to non-commissioned officers or soldiers, in such numbers, and for so long a time, as he shall judge to be most consistent with the good of the service; and a captain, or other inferior officer, commanding a troop or company, or in any garrison, fort, or barrack of the United States (his field officer being absent), may give furloughs to non-commissioned officers or soldiers, for a time not exceeding twenty days in six months, but not to more than two persons to be absent at the same time, excepting some extraordinary occasion should require it.

ART. 13. At every muster, the commanding officer of each regiment, troop, or company, there present, shall give to the commissary of musters, or other officer who musters the said regiment, troop or company, certificates signed by himself, signifying how long such officers, as shall not appear at the said muster, have been absent, and the reason of their absence. In like manner, the commanding officer of every troop or company shall give certificates, signifying the reasons of the absence of the non-commissioned officers and private soldiers; which reasons and time of absence shall be inserted in the muster rolls, opposite the names of the respective absent officers and soldiers. The certificates shall, together with the muster rolls, be remitted by the commissary of musters, or other officer mustering, to the Department of War, as speedily as the distance of the place will admit.

ART. 14. Every officer who shall be convicted before a general court martial of having signed a false certificate relating to the absence of either officer or private soldier, or relative to his or their pay, shall be cashiered.

ART. 15. Every officer who shall knowingly make a false muster of man or horse, and every officer or commissary of musters who shall willingly sign, direct, or allow the signing of muster-rolls wherein such false muster is contained, shall, upon proof made thereof, by two witnesses, before a general court martial, be cashiered, and shall be thereby utterly disabled to have or hold any office or employment in the service of the United States.

ART. 16. Any commissary of musters, or other officer, who shall be convicted of having taken money, or other thing, by way of gratification, on mustering any regiment, troop, or company, or on signing muster-rolls, shall be displaced from his office, and shall be thereby utterly disabled to have or hold any office or employment in the service of the United States.

ART. 17. Any officer who shall presume to muster a person as a soldier who is not a soldier, shall be deemed guilty of having made a false muster, and shall suffer accordingly.

ART. 18. Every officer who shall knowingly make a false return to the Department of War, or to any of his superior officers, authorized to call for such returns, of the state of the regiment, troop, or company or garrison, under his command; or of the arms, ammunition, clothing, or other stores thereunto belonging, shall, on conviction thereof before a court martial, be cashiered.

ART. 19. The commanding officer of every regiment, troop, or independent company, or garrison of the United States, shall, in the beginning of every month, remit, through the proper channels, to the Department of War, an exact return of the regiment, troop, independent company, or garrison, under his command, specifying the names of the officers then absent from their posts, with the reasons for and the time of their absence. And any officer who shall be convicted of having, through neglect or design, omitted sending such returns, shall be punished, according to the nature of his crime, by the judgment of a general court martial.

ART. 20. All officers and soldiers who have received pay, or have been duly enlisted in the service of the United States, and shall be convicted of having deserted the same, shall suffer death, or such other punishment as, by sentence of a court martial, shall be inflicted.[1]

ART. 21. Any non-commissioned officer or soldier who shall, without leave from his commanding officer, absent himself from his troop, company, or detachment, shall, upon being convicted thereof, be punished according to the nature of his offence, at the discretion of a court martial.

ART. 22. No non-commissioned officer or soldier shall enlist himself in any other regiment, troop, or company, without a regular discharge from the regiment, troop, or company in which he last served, on the penalty of being reputed a deserter, and suffering accordingly. And in case any officer shall knowingly receive and entertain such non-commissioned officer or soldier, or shall not, after his being discovered to be a deserter, immediately confine him, and give notice thereof to the corps in which he last served, the said officer shall, by a court martial, be cashiered.

ART. 23. Any officer or soldier who shall be convicted of having advised or persuaded any other officer or soldier to desert the service of the United States, shall suffer death, or such other punishment as shall be inflicted upon him by the sentence of a court martial.

ART. 24. No officer or soldier shall use any reproachful or provoking speeches or gestures to another, upon pain, if an officer, of being put in arrest; if a soldier, confined, and of asking pardon of the party offended, in the presence of his commanding officer.

ART. 25. No officer or soldier shall send a challenge to another officer or soldier, to fight a duel, or accept a challenge if sent, upon pain, if a commissioned officer, of being cashiered; if a non-commissioned officer or soldier, of suffering corporeal punishment, at the discretion of a court martial.

ART. 26. If any commissioned or non-commissioned officer commanding a guard shall knowingly or willingly suffer any person whatsoever to go forth to fight a duel, he shall be punished as a challenger; and all seconds, promoters, and carriers of challenges, in order to duels, shall be deemed principals, and be punished accordingly. And it shall be the duty of every officer commanding an army, regiment, company, post, or detachment, who is knowing to a challenge being given or accepted by any officer, non-commissioned officer, or soldier, under his command, or has reason to believe the same to be the case, immediately to arrest and bring to trial such offenders.

ART. 27. All officers, of what condition soever, have power to part and quell all quarrels, frays, and disorders, though the persons concerned should belong to another regiment, troop, or company; and either to order officers into arrest, or non-commissioned officers or soldiers into confinement, until their proper superior officers shall be acquainted therewith; and whosoever shall refuse to obey such officer (though of an inferior rank), or shall draw his sword upon him, shall be punished at the discretion of a general court martial.

ART. 28. Any officer or soldier who shall upbraid another for refusing a challenge, shall himself be punished as a challenger; and all officers and soldiers are hereby discharged from any disgrace or opinion of disadvantage which might arise from their having refused to accept of challenges, as they

[1] Modified by act of 29th May, 1830.

will only have acted in obedience to the laws, and done their duty as good soldiers who subject themselves to discipline.

ART. 29. No sutler shall be permitted to sell any kind of liquors or victuals, or to keep their houses or shops open for the entertainment of soldiers, after nine at night, or before the beating of the reveille, or upon Sundays, during divine service or sermon, on the penalty of being dismissed from all future sutling.

ART. 30. All officers commanding in the field, forts, barracks, or garrisons of the United States, are hereby required to see that the persons permitted to suttle shall supply the soldiers with good and wholesome provisions, or other articles, at a reasonable price, as they shall be answerable for their neglect.

ART. 31. No officer commanding in any of the garrisons, forts, or barracks of the United States, shall exact exorbitant prices for houses or stalls, let out to sutlers, or connive at the like exactions in others; nor by his own authority, and for his private advantage, lay any duty or imposition upon, or be interested in, the sale of any victuals, liquors, or other necessaries of life brought into the garrison, fort, or barracks, for the use of the soldiers, on the penalty of being discharged from the service.

ART. 32. Every officer commanding in quarters, garrisons, or on the march, shall keep good order, and to the utmost of his power, redress all abuses or disorders which may be committed by any officer or soldier under his command; if, upon complaint made to him of officers or soldiers beating or otherwise ill-treating any person, or disturbing fairs or markets, or of committing any kind of riots, to the disquieting of the citizens of the United States, he, the said commander, who shall refuse or omit to see justice done to the offender or offenders, and reparation made to the party or parties injured, as far as part of the offender's pay shall enable him or them, shall, upon proof thereof, be cashiered, or otherwise punished, as a general court martial shall direct.

ART. 33. When any commissioned officer or soldier shall be accused of a capital crime, or of having used violence, or committed any offence against the person or property of any citizen of any of the United States, such as is punishable by the known laws of the land, the commanding officer and officers of every regiment, troop, or company, to which the person or persons so accused shall belong, are hereby required, upon application duly made by, or in behalf of the party or parties injured, to use their utmost endeavors to deliver over such accused person or persons to the civil magistrate, and likewise to be aiding and assisting to the officers of justice in apprehending and securing the person or persons so accused, in order to bring him or them to trial. If any commanding officer or officers shall wilfully neglect, or shall refuse, upon the application aforesaid, to deliver over such accused person or persons to the civil magistrates, or to be aiding and assisting to the officers of justice in apprehending such person or persons, the officer or officers so offending shall be cashiered.

ART. 34. If any officer shall think himself wronged by his colonel, or the commanding officer of the regiment, and shall, upon due application being made to him, be refused redress, he may complain to the general commanding in the state or territory where such regiment shall be stationed, in order to obtain justice; who is hereby required to examine into said complaint, and take proper measures for redressing the wrong complained of, and transmit, as soon as possible, to the Department of War, a true state of such complaint, with the proceedings had thereon.

ART. 35. If any inferior officer or soldier shall think himself wronged by

his captain or other officer, he is to complain thereof to the commanding officer of the regiment, who is hereby required to summon a regimental court martial, for the doing justice to the complainant; from which regimental court martial either party may, if he thinks himself still aggrieved, appeal to a general court martial. But if, upon a second hearing, the appeal shall appear vexatious and groundless, the person so appealing shall be punished at the discretion of the said court martial.

ART. 36. Any commissioned officer, store-keeper, or commissary, who shall be convicted at a general court martial of having sold, without a proper order for that purpose, embezzled, misapplied, or wilfully, or through neglect, suffered any of the provisions, forage, arms, clothing, ammunition, or other military stores belonging to the United States to be spoiled or damaged, shall, at his own expense, make good the loss or damage, and shall, moreover, forfeit all his pay, and be dismissed from the service.

ART. 37. Any non-commissioned officer or soldier who shall be convicted at a regimental court martial of having sold, or designedly or through neglect, wasted the ammunition delivered out to him, to be employed in the service of the United States, shall be punished at the discretion of such court.

ART. 38. Every non-commissioned officer or soldier who shall be convicted before a court martial of having sold, lost, or spoiled, through neglect, his horse, arms, clothes, or accoutrements, shall undergo such weekly stoppages (not exceeding the half of his pay) as such court martial shall judge sufficient, for repairing the loss or damage; and shall suffer confinement, or such other corporeal punishment as his crime shall deserve.

ART. 39. Every officer who shall be convicted before a court martial of having embezzled or misapplied any money with which he may have been intrusted, for the payment of the men under his command, or for enlisting men into the service, or for other purposes, if a commissioned officer, shall be cashiered, and compelled to refund the money; if a non-commissioned officer, shall be reduced to the ranks, be put under stoppages until the money be made good, and suffer such corporeal punishment as such court martial shall direct.

ART. 40. Every captain of a troop or company is charged with the arms, accoutrements, ammunition, clothing, or other warlike stores belonging to the troop or company under his command, which he is to be accountable for to his colonel in case of their being lost, spoiled, or damaged, not by unavoidable accidents, or on actual service.

ART. 41. All non-commissioned officers and soldiers who shall be found one mile from the camp without leave, in writing, from their commanding officer, shall suffer such punishment as shall be inflicted upon them by the sentence of a court martial.

ART. 42. No officer or soldier shall lie out of his quarters, garrison, or camp without leave from his superior officer, upon penalty of being punished according to the nature of his offence, by the sentence of a court martial.

ART. 43. Every non-commissioned officer and soldier shall retire to his quarters or tent at the beating of the retreat; in default of which he shall be punished according to the nature of his offence.

ART. 44. No officer, non-commissioned officer, or soldier shall fail in repairing, at the time fixed, to the place of parade, of exercise, or other rendezvous appointed by his commanding officer, if not prevented by sickness or some other evident necessity, or shall go from the said place of rendezvous without leave from his commanding officer, before he shall be regularly dismissed or relieved, on the penalty of being punished, according to the nature of his offence, by the sentence of a court martial.

ART. 45. Any commissioned officer who shall be found drunk on his guard, party, or other duty, shall be cashiered. Any non-commissioned officer or soldier so offending shall suffer such corporeal punishment as shall be inflicted by the sentence of a court martial.

ART. 46. Any sentinel who shall be found sleeping upon his post, or shall leave it before he shall be regularly relieved, shall suffer death, or such other punishment as shall be inflicted by the sentence of a court martial.

ART. 47. No soldier belonging to any regiment, troop, or company shall hire another to do his duty for him, or be excused from duty but in cases of sickness, disability, or leave of absence; and every such soldier found guilty of hiring his duty, as also the party so hired to do another's duty, shall be punished at the discretion of a regimental court martial.

ART. 48. And every non-commissioned officer conniving at such hiring of duty aforesaid, shall be reduced; and every commissioned officer knowing and allowing such ill practices in the service, shall be punished by the judgment of a general court martial.

ART. 49. Any officer belonging to the service of the United States, who, by discharging of firearms, drawing of swords, beating of drums, or by any other means whatsoever, shall occasion false alarms in camp, garrison, or quarters, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court martial.

ART. 50. Any officer or soldier who shall, without urgent necessity, or without the leave of his superior officer, quit his guard, platoon, or division, shall be punished, according to the nature of his offence, by the sentence of a court martial.

ART. 51. No officer or soldier shall do violence to any person who brings provisions or other necessaries to the camp, garrison, or quarters of the forces of the United States, employed in any parts out of the said States, upon pain of death, or such other punishment as a court-martial shall direct.

ART. 52. Any officer or soldier who shall misbehave himself before the enemy, run away, or shamefully abandon any fort, post, or guard which he or they may be commanded to defend, or speak words inducing others to do the like, or shall cast away his arms and ammunition, or who shall quit his post or colors to plunder and pillage, every such offender, being duly convicted thereof, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court martial.

ART. 53. Any person belonging to the armies of the United States who shall make known the watchword to any person who is not entitled to receive it according to the rules and discipline of war, or shall presume to give a parole or watchword different from what he received, shall suffer death, or such other punishment as shall be ordered by the sentence of a general court martial.

ART. 54. All officers and soldiers are to behave themselves orderly in quarters and on their march; and whoever shall commit any waste or spoil, either in walks of trees, parks, warrens, fish-ponds, houses, or gardens, corn-fields, enclosures of meadows, or shall maliciously destroy any property whatsoever belonging to the inhabitants of the United States, unless by order of the then commander-in-chief of the armies of the said States, shall (besides such penalties as they are liable to by law), be punished according to the nature and degree of the offence, by the judgment of a regimental or general court martial.

ART. 55. Whosoever, belonging to the armies of the United States in foreign parts, shall force a safeguard, shall suffer death.

ART. 56. Whosoever shall relieve the enemy with money, victuals, or am-

munition, or shall knowingly harbor or protect an enemy, shall suffer death, or such other punishment as shall be ordered by the sentence of a court martial.

ART. 57. Whosoever shall be convicted of holding correspondence with, or giving intelligence to, the enemy, either directly or indirectly, shall suffer death, or such other punishment as shall be ordered by the sentence of a court martial.

ART. 58. All public stores taken in the enemy's camp, towns, forts, or magazines, whether of artillery, ammunition, clothing, forage, or provisions, shall be secured for the service of the United States; for the neglect of which the commanding officer is to be answerable.

ART. 59. If any commander of any garrison, fortress, or post shall be compelled, by the officers and soldiers under his command, to give up to the enemy, or to abandon it, the commissioned officers, non-commissioned officers or soldiers, who shall be convicted of having so offended, shall suffer death, or such other punishment as shall be inflicted upon them by the sentence of a court martial.

ART. 60. All sutlers and retainers to the camp, and all persons whatsoever, serving with the armies of the United States in the field, though not enlisted soldiers, are to be subject to orders, according to the rules and discipline of war.

ART. 61. Officers having brevets or commissions of a prior date to those of the regiment in which they serve, may take place in courts martial and on detachments, when composed of different corps, according to the ranks given them in their brevets or dates of their former commissions; but in the regiment, troop, or company to which such officers belong, they shall do duty and take rank both in courts martial and on detachments which shall be composed of their own corps, according to the commissions by which they are mustered in the said corps.

ART. 62. If, upon marches, guards, or in quarters, different corps of the army shall happen to join, or do duty together, the officer highest in rank of the line of the army, marine corps, or militia, by commission, there on duty or in quarters, shall command the whole, and give orders for what is needful to the service, unless otherwise specially directed by the President of the United States, according to the nature of the case.

ART. 63. The functions of the engineers being generally confined to the most elevated branch of military science, they are not to assume, nor are they subject to be ordered on any duty beyond the line of their immediate profession, except by the special order of the President of the United States; but they are to receive every mark of respect to which their rank in the army may entitle them respectively, and are liable to be transferred, at the discretion of the President, from one corps to another, regard being paid to rank.

ART. 64. General courts martial may consist of any number of commissioned officers, from five to thirteen, inclusively; but they shall not consist of less than thirteen where that number can be convened without manifest injury to the service.

ART. 65.[1] Any general officer commanding an army, or colonel commanding a separate department, may appoint general courts martial whenever necessary. But no sentence of a court martial shall be carried into execution until after the whole proceedings shall have been laid before the officer

[1] Modified by act of 29th May, 1830.

ordering the same, or the officer commanding the troops for the time being; neither shall any sentence of a general court martial, in the time of peace, extending to the loss of life, or the dismission of a commissioned officer, or which shall, either in time of peace or war, respect a general officer, be carried into execution, until after the whole proceedings shall have been transmitted to the Secretary of War, to be laid before the President of the United States for his confirmation or disapproval, and orders in the case. All other sentences may be confirmed and executed by the officer ordering the court to assemble, or the commanding officer for the time being, as the case may be.

ART. 66. Every officer commanding a regiment or corps may appoint, for his own regiment or corps, courts martial, to consist of three commissioned officers, for the trial and punishment of offences not capital, and decide upon their sentences. For the same purpose, all officers commanding any of the garrisons, forts, barracks, or other places where the troops consist of different corps, may assemble courts martial, to consist of three commissioned officers, and decide upon their sentences.

ART. 67. No garrison or regimental court martial shall have the power to try capital cases or commissioned officers; neither shall they inflict a fine exceeding one month's pay, nor imprison, nor put to hard labor, any non-commissioned officer or soldier for a longer time than one month.

ART. 68. Whenever it may be found convenient and necessary to the public service, the officers of the marines shall be associated with the officers of the land forces, for the purpose of holding courts martial, and trying offenders belonging to either; and, in such cases, the orders of the senior officer of either corps who may be present and duly authorized, shall be received and obeyed.

ART. 69. The judge advocate, or some person deputed by him, or by the general, or officer commanding the army, detachment, or garrison, shall prosecute in the name of the United States, but shall so far consider himself as counsel for the prisoner, after the said prisoner shall have made his plea, as to object to any leading question to any of the witnesses, or any question to the prisoner, the answer to which might tend to criminate himself; and administer to each member of the court, before they proceed upon any trial, the following oath, which shall also be taken by all members of the regimental and garrison courts martial:

"You, A. B., do swear that you will well and truly try and determine, according to evidence, the matter now before you, between the United States of America and the prisoner to be tried, and that you will duly administer justice, according to the provisions of 'An act establishing Rules and Articles for the government of the armies of the United States,' without partiality, favor, or affection; and if any doubt should arise, not explained by said Articles, according to your conscience, the best of your understanding, and the custom of war in like cases; and you do further swear that you will not divulge the sentence of the court until it shall be published by the proper authority; neither will you disclose or discover the vote or opinion of any particular member of the court martial, unless required to give evidence thereof, as a witness, by a court of justice, in a due course of law. So help you God."

And as soon as the said oath shall have been administered to the respective members, the president of the court shall administer to the judge advocate, or person officiating as such, an oath in the following words:

"You, A. B., do swear, that you will not disclose or discover the vote or opinion of any particular member of the court martial, unless required to

give evidence thereof, as a witness, by a court of justice, in due course of law; nor divulge the sentence of the court to any but the proper authority, until it shall be duly disclosed by the same. So help you God."

ART. 70. When a prisoner, arraigned before a general court martial, shall, from obstinacy and deliberate design, stand mute, or answer foreign to the purpose, the court may proceed to trial and judgment as if the prisoner had regularly pleaded not guilty.

ART. 71. When a member shall be challenged by a prisoner, he must state his cause of challenge, of which the court shall, after due deliberation, determine the relevancy or validity, and decide accordingly; and no challenge to more than one member at a time shall be received by the court.

ART. 72. All the members of a court martial are to behave with decency and calmness; and in giving their votes are to begin with the youngest in commission.

ART. 73. All persons who give evidence before a court martial are to be examined on oath or affirmation, in the following form:

"You swear, or affirm (as the case may be), the evidence you shall give in the cause now in hearing shall be the truth, the whole truth, and nothing but the truth. So help you God."

ART. 74. On the trials of cases not capital, before courts martial, the deposition of witnesses, not in the line or staff of the army, may be taken before some justice of the peace, and read in evidence; provided the prosecutor and person accused are present at the taking the same, or are duly notified thereof.

ART. 75. No officer shall be tried but by a general court martial, nor by officers of an inferior rank, if it can be avoided. Nor shall any proceedings of trials be carried on, excepting between the hours of eight in the morning and three in the afternoon, excepting in cases which, in the opinion of the officer appointing the court martial, require immediate example.

ART. 76. No person whatsoever shall use any menacing words, signs, or gestures, in presence of a court martial, or shall cause any disorder or riot, or disturb their proceedings, on the penalty of being punished at the discretion of the said court martial.

ART. 77. Whenever any officer shall be charged with a crime, he shall be arrested and confined in his barracks, quarters, or tent, and deprived of his sword by the commanding officer. And any officer who shall leave his confinement before he shall be set at liberty by his commanding officer, or by a superior officer, shall be cashiered.

ART. 78. Non-commissioned officers and soldiers, charged with crimes, shall be confined until tried by a court martial, or released by proper authority.

ART. 79. No officer or soldier who shall be put in arrest shall continue in confinement more than eight days, or until such time as a court martial can be assembled.

ART. 80. No officer commanding a guard, or provost-marshal, shall refuse to receive or keep any prisoner committed to his charge by an officer belonging to the forces of the United States; provided the officer committing shall, at the same time, deliver an account in writing, signed by himself, of the crime with which the said prisoner is charged.

ART. 81. No officer commanding a guard, or provost-marshal, shall presume to release any person committed to his charge without proper authority for so doing, nor shall he suffer any person to escape, on the penalty of being punished for it by the sentence of a court martial.

ART. 82. Every officer or provost-marshal, to whose charge prisoners shall

be committed, shall, within twenty-four hours after such commitment, or as soon as he shall be relieved from his guard, make report in writing, to the commanding officer, of their names, their crimes, and the names of the officers who committed them, on the penalty of being punished for disobedience or neglect, at the discretion of a court martial.

ART. 83. Any commissioned officer convicted before a general court martial of conduct unbecoming an officer and a gentleman, shall be dismissed the service.

ART. 84. In cases where a court martial may think it proper to sentence a commissioned officer to be suspended from command, they shall have power also to suspend his pay and emoluments for the same time, according to the nature and heinousness of the offence.

ART. 85. In all cases where a commissioned officer is cashiered for cowardice or fraud, it shall be added in the sentence, that the crime, name, and place of abode, and punishment of the delinquent, be published in the newspapers in and about the camp, and of the particular State from which the offender came, or where he usually resides; after which it shall be deemed scandalous for an officer to associate with him.

ART. 86. The commanding officer of any post or detachment, in which there shall not be a number of officers adequate to form a general court martial, shall, in cases which require the cognizance of such a court, report to the commanding officer of the department, who shall order a court to be assembled at the nearest post or department, and the party accused, with necessary witnesses, to be transported to the place where the said court shall be assembled.

ART. 87.[1] No person shall be sentenced to suffer death but by the concurrence of two-thirds of the members of a general court martial, nor except in the cases herein expressly mentioned; *nor shall more than fifty lashes be inflicted on any offender, at the discretion of a court martial;* and no officer, non-commissioned officer, soldier, or follower of the army, shall be tried a second time for the same offence.

ART. 88. No person shall be liable to be tried and punished by a general court martial for any offence which shall appear to have been committed more than two years before the issuing of the order for such trial, unless the person, by reason of having absented himself, or some other manifest impediment, shall not have been amenable to justice within that period.

ART. 89. Every officer authorized to order a general court martial shall have power to pardon or mitigate any punishment ordered by such court, except the sentence of death, or of cashiering an officer; which, in the cases where he has authority (by Article 65) to carry them into execution, he may suspend, until the pleasure of the President of the United States can be known; which suspension, together with copies of the proceedings of the court martial, the said officer shall immediately transmit to the president for his determination. And the colonel or commanding officer of the regiment or garrison where any regimental or garrison court martial shall be held, may pardon or mitigate any punishment ordered by such court to be inflicted.

ART. 90. Every judge advocate, or person officiating as such, at any general court martial, shall transmit, with as much expedition as the opportunity of time and distance of place can admit, the original proceedings and

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[1] So much of these rules and articles as authorizes the infliction of corporeal punishment by stripes and lashes, was specially repealed by act of 16th May, 1812. By act of 2d March, 1833, the repealing act was repealed, so far as it applied to the crime of desertion, which of course, revived the punishment by lashes for that offence.

sentence of such court martial to the Secretary of War; which said original proceedings and sentence shall be carefully kept and preserved in the office of said secretary, to the end that the persons entitled thereto may be enabled, upon application to the said office, to obtain copies thereof.

The party tried by any general court martial shall, upon demand thereof, made by himself, or by any person or persons in his behalf, be entitled to a copy of the sentence and proceedings of such court martial.

ART. 91. In cases where the general, or commanding officer may order a court of inquiry to examine into the nature of any transaction, accusation, or imputation against any officer or soldier, the said court shall consist of one or more officers, not exceeding three, and a judge advocate, or other suitable person as a recorder, to reduce the proceedings and evidence to writing; all of whom shall be sworn to the faithful performance of their duty. This court shall have the same power to summon witnesses as a court martial, and to examine them on oath. But they shall not give their opinion on the merits of the case, excepting they shall be thereto specially required. The parties accused shall also be permitted to cross-examine and interrogate the witnesses, so as to investigate fully the circumstances in the question.

ART. 92. The proceedings of a court of inquiry must be authenticated by the signature of the recorder and the president, and delivered to the commanding officer, and the said proceedings may be admitted as evidence by a court martial, in cases not capital, or extending to the dismission of an officer, provided that the circumstances are such that oral testimony cannot be obtained. But as courts of inquiry may be perverted to dishonorable purposes, and may be considered as engines of destruction to military merit, in the hands of weak and envious commandants, they are hereby prohibited, unless directed by the President of the United States, or demanded by the accused.

ART. 93. The judge advocate or recorder shall administer to the members the following oath:

"You shall well and truly examine and inquire, according to your evidence, into the matter now before you, without partiality, favor, affection, prejudice, or hope of reward. So help you God."

After which the president shall administer to the judge advocate or recorder the following oath:

"You, A. B., do swear that you will, according to your best abilities, accurately and impartially record the proceedings of the court, and the evidence to be given in the case in hearing. So help you God."

The witnesses shall take the same oath as witnesses sworn before a court martial.

ART. 94. When any commissioned officer shall die or be killed in the service of the United States, the major of the regiment, or the officer doing the major's duty in his absence, or in any post or garrison, the second officer in command, or the assistant military agent, shall immediately secure all his effects or equipage, then in camp or quarters, and shall make an inventory thereof, and forthwith transmit the same to the office of the Department of War, to the end that his executors or administrators may receive the same.

ART. 95. When any non-commissioned officer or soldier shall die, or be killed in the service of the United States, the then commanding officer of the troop or company shall, in the presence of two other commissioned officers, take an account of what effects he died possessed of, above his arms and accoutrements, and transmit the same to the office of the Department of War, which said effects are to be accounted for, and paid to the representatives of such deceased non-commissioned officer or soldier. And in case any

of the officers, so authorized to take care of the effects of deceased officers and soldiers, should, before they have accounted to their representatives for the same, have occasion to leave the regiment or post, by preferment or otherwise, they shall, before they be permitted to quit the same, deposit in the hands of the commanding officer, or of the assistant military agent, all the effects of such deceased non-commissioned officers and soldiers, in order that the same may be secured for, and paid to, their respective representatives.

ART. 96. All officers, conductors, gunners, matrosses, drivers, or other persons whatsoever, receiving pay or hire in the service of the artillery, or corps of engineers of the United States, shall be governed by the aforesaid Rules and Articles, and shall be subject to be tried by courts martial, in like manner with the officers and soldiers of the other troops in the service of the United States.

ART. 97. The officers and soldiers of any troops, whether militia or others, being mustered and in pay of the United States, shall, at all times and in all places, when joined, or acting in conjunction with the regular forces of the United States, be governed by these rules and articles of war, and shall be subject to be tried by courts martial in like manner with the officers and soldiers in the regular forces; save only that such courts martial shall be composed entirely of militia officers.

ART. 98. All officers serving by commission from the authority of any particular state, shall, on all detachments, courts martial, or other duty, wherein they may be employed in conjunction with the regular forces of the United States, take rank next after all officers of the like grade in said regular forces, notwithstanding the commissions of such militia or state officers may be older than the commissions of the officers of the regular forces of the United States.

ART. 99. All crimes not capital, and all disorders and neglects which officers and soldiers may be guilty of, to the prejudice of good order and military discipline, though not mentioned in the foregoing articles of war, are to be taken cognizance of by a general or regimental court martial, according to the nature and degree of the offence, and be punished at their discretion.

ART. 100. The President of the United States shall have power to prescribe the uniform of the army.

ART. 101. The foregoing articles are to be read and published, once in every six months, to every garrison, regiment, troop, or company, mustered, or to be mustered, in the service of the United States, and are to be duly observed and obeyed by all officers and soldiers who are, or shall be, in said service.

SEC. 2. *And be it further enacted*, That in time of war, all persons not citizens of, or owing allegiance to, the United States of America, who shall be found lurking as spies in or about the fortifications or encampments of the armies of the United States, or any of them, shall suffer death, according to the law and usage of nations, by sentence of a general court martial.

SEC. 3. *And be it further enacted*, That the rules and regulations by which the armies of the United States have heretofore been governed, and the resolves of Congress thereunto annexed, and respecting the same, shall henceforth be void and of no effect, except so far as may relate to any transactions under them prior to the promulgation of this act, at the several posts and garrisons respectively, occupied by any part of the army of the United States. [APPROVED, April 10, 1806.]

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